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**United States  
Department of  
Agriculture**

Agricultural  
Research  
Service

# Plant Inventory

## No. 191

Plant Material Introduced  
January 1 to December 31, 1983  
(Nos. 475834 to 483096)



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# **Plant Inventory**

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Plant Material Introduced  
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Plant Inventory No. 191 is a historical record of accessioned plant germplasm; it is not a listing of plant material for distribution. Questions about data organization and proper plant identification in this inventory should be directed to the authors.

Thanks are expressed to the following persons associated with the Plant Introduction Office for their contributions to Plant Inventory No. 191: L. G. Garner and R. A. Norris for continued excellence in handling all aspects of the computer system operation; and S. Kenworthy for coordinating PI and associated records and correspondence. Assistance by J. Mowder, Database Management Unit, with software and hardware problems is appreciated. Services performed by the University of Maryland were provided through a cooperative agreement.

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475834 TO 475843. *Lycopersicon esculentum* Mill. (Solanaceae) Tomato.

From Bulgaria. Donated by Institute for Genetic Resources; Sofia. Received through Institute of Introduction and Plant Resources, Sadovo.  
Received December 1982.

- 475834. 212-1. Bulgaria. Cultivated. Seed.
- 475835. 243-7. Bulgaria. Cultivated. Seed.
- 475836. 267-10. Bulgaria. Cultivated. Seed.
- 475837. 305-6. Bulgaria. Cultivated. Seed.
- 475838. 312-3. Bulgaria. Cultivated. Seed.
- 475839. 312-30. Bulgaria. Cultivated. Seed.
- 475840. 453-3. Bulgaria. Cultivated. Seed.
- 475841. 495-12. Bulgaria. Cultivated. Seed.
- 475842. 515-2. Bulgaria. Cultivated. Seed.
- 475843. 555. Bulgaria. Cultivated. Seed.

475844 TO 475847. *Arachis* sp. (Fabaceae).

From Bolivia. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

- 475844. GKBSpsc 30069. Bolivia. Collected April 07, 1977. Thirty km N of Yacuiba, Campo de la Tapia, 2km E of rd to Villa Montes. 550-600m. Lat. 21 deg. 48' S, Long. 63 deg. 33' W. Collected by W.C. Gregory, A. Krapovickas, D.J. Banks, C.E. Simpson, J. Pietrarelly, A. Schinini. Edge of arroyo in open shrubs and trees, in light brown sandy clay with gravel. Plants procumbent with orange standards. Nodules from 5 plants. Rhizobial vial 66. Annual. Wild. Seed.
- 475845. GKBSpsc 30070. Bolivia. Collected April 07, 1977. Eighteen km N of Yacuiba and 17km S of Caiza on road to Villa Montes. 600m. Lat. 21 deg. 53' S, Long. 63 deg. 38' W. Collected by W.C. Gregory, A. Krapovickas, D.J. Banks, C.E. Simpson, J. Pietrarelly, A. Schinini. In open shrubs and trees and on a small mesa of shrubs, herbs, and grasses in light brown alluvial sand or sandy loam on bank of Arroyo Coloradito del Palmar. Plants procumbent with orange standards. Nodules from 7 plants. Rhizobial vial 68. Annual. Wild. Seed.

475844 TO 475847-continued

475846. GKSPSc 30071. Bolivia. Collected April 08, 1977. Two km W of Saladillo, headwaters of the Rio Carapari, Gran Chaco. 1000m. Lat. 21 deg. 41' S, Long. 63 deg. 45' W. Collected by W.C. Gregory, A. Krapovickas, D.J. Banks, C.E. Simpson, J. Pietrarelli, A. Schinini. In open shrubs and trees, light brown alluvial clay-loam-gravel. Plants procumbent with orange standards. Nodules from 3 plants. Rhizobial vial 70. Annual. Wild. Seed.
475847. GKSPSc 30072. Bolivia. Collected April 08, 1977. Fourteen km N of Carapari at jct of Rio Campo Largo and Rio Carapari. 870-1000m. Lat. 21 deg. 41' S, Long. 63 deg. 44' W. Collected by W.C. Gregory, A. Krapovickas, D.J. Banks, C.E. Simpson, J. Pietrarelli, A. Schinini. In light red alluvial sandy loam on bank of the river among scattered trees, grasses, and herbs. Plants procumbent with orange standards. Nodules from 8 plants. Rhizobial vial 71. Annual. Wild. Seed.

475848 TO 475872. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Bolivia. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

475848. GKSPScGb 201. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Local name Colorado chico. Cultivated. Seed.
475849. GKSPScGb 202. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Cultivated. Seed.
475850. GKSPScGb 203. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Local name Mani Chico. Cultivated. Seed.
475851. GKSPScGb 204. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Cultivated. Seed.
475852. GKSPScGb 205. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Cultivated. Seed.

475848 TO 475872-continued

475853. GKSPScGb 206. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Cultivated. Seed.
475854. GKSPScGb 207. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Local name Cruceno. Cultivated. Seed.
475855. GKSPScGb 208. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Cultivated. Seed.
475856. GKSPScGb 209. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Cultivated. Seed.
475857. GKSPScGb 210. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Local name Colorado Grande. Cultivated. Seed.
475858. GKSPScGb 211. Bolivia. Collected April 06, 1979. Market, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Local name Colla. Cultivated. Seed.
475859. GKSPScGb 212. Bolivia. Collected April 07, 1979. CIAT (Saavedra Exp Stn). Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Local name Perla de Saavedra. Cultivated. Seed.
475860. GKSPSc 213. Bolivia. Collected April 10, 1979. Market, Trinidad. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Local name Mani Gris. Cultivated. Seed.
475861. GKSPSc 214. Bolivia. Collected April 10, 1979. Market, Trinidad. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475862. GKSPSc 215. Bolivia. Collected April 10, 1979. Market, Trinidad. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475863. GKSPSc 216. Bolivia. Collected April 11, 1979. Magdalena, Beni. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini.

475848 TO 475872-continued

Cultivated. Seed.

475864. GKSPSc 217. Bolivia. Collected April 11, 1979. Huacaraje, Beni. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475865. GKSPSc 218. Bolivia. Collected April 12, 1979. San Borja, Beni. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475866. GKSPSc 219. Bolivia. Collected April 12, 1979. San Borja, Beni. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475867. GKSPSc 220. Bolivia. Collected April 12, 1979. San Borja, Beni. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Originally from Chumanes Indians on Rio Manequi. Cultivated. Seed.
475868. GKSPSc 221. Bolivia. Collected April 12, 1979. San Ignacio, Beni. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475869. GKSPSc 222. Bolivia. Collected April 17, 1979. Market, Guayaramerin. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475870. GKSPSc 223. Bolivia. Collected April 18, 1979. Market, Guayaramerin. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475871. GKSPSc 224. Brazil. Collected April 19, 1979. Farmer, Guajara-Mirim. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.
475872. GKSPSc 225. Bolivia. Collected April 20, 1979. East, 20km of Riberalta, Beni. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Cultivated. Seed.

475873 TO 475879. *Arachis* sp. (Fabaceae).

From Bolivia. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.

475873 TO 475879--continued  
Received December 1981.

475873. GKSPScGb 35001. Bolivia. Collected April 06, 1979. Botanical Gardens, Santa Cruz. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Perennial Herb. Wild. Plants.
475874. GKSPScGb 35002. Bolivia. Collected April 07, 1979. North, 2.5km of Nueva Moca, 9.7km from square in Portachuelo, Santa Cruz. 300m. Lat. 17 deg. 19' S, Long. 63 deg. 32' W. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Rhizobial vial 213. Perennial Herb. Wild. Seed.
475875. GKSPScGb 35003. Bolivia. Collected April 07, 1979. West, 2km of Palometilla River bridge, 13.1km W of Portachuelo, Santa Cruz. 400m. Lat. 17 deg. 22' S, Long. 63 deg. 29' W. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Rhizobial vial 214. Perennial Herb. Wild. Seed.
475876. GKSPScGb 35004. Bolivia. Collected April 07, 1979. South, 3.2km of hwy to Portachuelo from Rio Yapacani, Santa Cruz. 350m. Lat. 17 deg. 27' S, Long. 63 deg. 34' W. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini, R.W. Gibbons. Rhizobial vial 215. Perennial Herb. Wild. Seed.
475877. GKSPSc 35005. Bolivia. Collected April 09, 1979. Airport runway, Trinidad, Beni. 250m. Lat. 14 deg. 47' S, Long. 64 deg. 55' W. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Rhizobial vial 216. Perennial Herb. Wild. Seed.
475878. GKSPSc 35006. Bolivia. Collected April 13, 1979. East, 200m of airport, Trinidad, Beni. 250m. Lat. 14 deg. 47' S, Long. 64 deg. 55' W. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Rhizobial vial 218. Perennial Herb. Wild. Seed.
475879. GKSPSc 35007. Bolivia. Collected April 18, 1979. North, 50m of terminal building at airport, Guayaramerin, Beni. 250m. Lat. 10 deg. 49' S, Long. 65 deg. 24' W. Collected by W.C. Gregory, A. Krapovickas, C.E. Simpson, J. Pietrarelli, A. Schinini. Rhizobial vial 220. Perennial Herb. Wild. Seed.

475880 TO 475887. *Arachis* sp. (Fabaceae).

From Argentina. Collected by Various Plant Explorers;  
International Board of Plant Genetic Resources (IBPGR),  
Food & Agriculture Organization; Rome, Italy.



475880 TO 475887-continued  
Received December 1981.

475880. SB 36000. Argentina. Collected March 31, 1980. NE, 4km of Corrientes airport, 12km NE of Univ., Rt 12 to Paso de la Patria. 50m. Lat. 27 deg. 20' S, Long. 58 deg. 40' W. Collected by C.E. Simpson, D.J. Banks. Soil a friable brown sand. Plants located at hilltop in sand. Flowers with solid yellow wings. Received as *A. correntina*. Rhizobial vial 225. Perennial Herb. Wild. Seed.
475881. SB 36001. Argentina. Collected March 31, 1980. NE, 4km of Corrientes airport, 12km NE of Univ., Rt 12 to Paso de la Patria. 50m. Lat. 27 deg. 20' S, Long. 58 deg. 40' W. Collected by C.E. Simpson, D.J. Banks. Soil a friable brown sand. Plants located at hilltop in sand. Flowers with bicolored wings mixed with solid yellow wings (SB 36000). Received as *A. correntina*. Rhizobial vial 225. Perennial Herb. Wild. Seed.
475882. KSBScC 36002. Argentina. Collected April 04, 1980. West northwest, 14km of El Tunal, Salta Provincia, Route 16. 600m. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Soil a dark brown to black, sandy loam over a silty clay loam. Between road to Rio Juramento, just 4km northwest, up river from dam being built on Rio Juramento and 2.5km east of Rio Medina. Plants found in area cleared, probably by surveyors for dam. Flowers yellow. Annual. Wild. Seed.
475883. KSBScC 36003. Argentina. Collected April 04, 1980. West northwest, 14km of El Tunal, Salta Provincia, Route 16. 600m. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Soil a dark brown to black, sandy loam over a silty clay loam. Between road to Rio Juramento, just 4km northwest, up river from dam being built on Rio Juramento and 2.5km east of Rio Medina. Plants found in area cleared, probably by surveyors for dam. Flowers orange. Annual. Wild. Seed.
475884. KSBScC 36004. Argentina. Collected April 08, 1980. West of Route 9, Palpala, Jujuy. 1100m. Lat. 24 deg. 16' S, Long. 65 deg. 12' W. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. In open second growth thorn brush, in brown, heavy but friable naturally fertile soil. Rhizobial vial 228. Annual. Wild. Seed.
475885. KSBScC 36005. Argentina. Collected April 09, 1980. Airport, Salta, just west of Route 9. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Soil gray, fine sand with many small stones. Flowers yellow. Rhizobial vial 229. Annual. Wild. Seed.

475880 TO 475887-continued

475886. KSBScC 36006. Argentina. Collected April 10, 1980. West, 3km of Salta, road to San Lorenzo, past entrance to Gran Boury. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Soil dark, clay loam at a small arroyo. Found in low area about 50m from highway. Plants found in heavy grass sod. Flowers orange. Annual. Wild. Seed.
475887. KSSc 36036. Argentina. Collected May 04, 1980. Rio Arenales in the city of Salta, Salta Province. 1250m. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Plants found between swimming pool and river. Rhizobial vial 286. Annual. Wild. Seed.

475888 TO 475984. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Bolivia. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

475888. KSBScC 301. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds red and white - Overo type. Cultivated. Seed.
475889. KSBScC 302. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds red and white - Overo type. Cultivated. Seed.
475890. KSBScC 303. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds red and white, some pure red. Cultivated. Seed.
475891. KSBScC 304. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds red and white. Cultivated. Seed.
475892. KSBScC 305. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Sucre. Seeds red and white. Cultivated. Seed.
475893. KSBScC 306. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds very dark red, looked old. Cultivated. Seed.

475888 TO 475984-continued

475894. KSBScC 307. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Cochabamba. Seeds red and white, some mixtures. Cultivated. Seed.
475895. KSBScC 308. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds bright red and white. Cultivated. Seed.
475896. KSBScC 309. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds solid reddish-brown or salmon color. Cultivated. Seed.
475897. KSBScC 310. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds large, bright brown and white. Cultivated. Seed.
475898. KSBScC 311. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds solid brown. Cultivated. Seed.
475899. KSBScC 312. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds solid brown or salmon color. Cultivated. Seed.
475900. KSBScC 313. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds red and white - Overo. Said to be better than Colorado. Cultivated. Seed.
475901. KSBScC 314. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds large, solid brown. Cultivated. Seed.
475902. KSBScC 315. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Sucre. Seeds red and white - Overo. Cultivated. Seed.
475903. KSBScC 316. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Sucre. Seeds very long, large, brownish-red and white.

475888 TO 475984-continued  
Cultivated. Seed.

475904. KSBScC 317. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Sucre. Seeds very long, large, brownish-red and white. Cultivated. Seed.
475905. KSBScC 318. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds medium, red and white - Overo. Cultivated. Seed.
475906. KSBScC 319. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds solid brown. Cultivated. Seed.
475907. KSBScC 320. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds red and white - Overo. Cultivated. Seed.
475908. KSBScC 321. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Sucre. Seeds large, solid brown. Cultivated. Seed.
475909. KSBScC 322. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds red and white - Overo, variable. Cultivated. Seed.
475910. KSBScC 323. Bolivia. Collected April 06, 1980. Market, Villazon. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds old, dark red and white - Overo. Cultivated. Seed.
475911. KSBScC 324. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Tarija. Seeds red and white - Overo. Cultivated. Seed.
475912. KSBScC 325. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Grown north of Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds red and white - Overo. Cultivated. Seed.
475913. KSBScC 326. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds solid

475888 TO 475984-continued

red. Cultivated. Seed.

475914. KSBScC 327. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds solid red. Cultivated. Seed.
475915. KSBScC 328. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds red and white - Overo. Mixed with KSBScC 327. Cultivated. Seed.
475916. KSBScC 329. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds solid red. Local name Mani "Camba". Cultivated. Seed.
475917. KSBScC 330. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds red and white. Cultivated. Seed.
475918. KSBScC 331. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds medium, solid red. Cultivated. Seed.
475919. KSBScC 332. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds large, solid dark red. Cultivated. Seed.
475920. KSBScC 333. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds solid red, bright in color. Local name Cruceno. Cultivated. Seed.
475921. KSBScC 334. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds red and white. local name Pintado de Chiquitos. Cultivated. Seed.
475922. KSBScC 335. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Cochabamba. Seeds large, brown. Local name Vallegrande. Cultivated. Seed.
475923. KSBScC 336. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E.

475888 TO 475984-continued

- Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds red and white. Local name de guarayos. Cultivated. Seed.
475924. KSBScC 338. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds red and white. Local name de Vallegrande. Cultivated. Seed.
475925. KSBScC 339. Bolivia. Collected April 13, 1980. Market, "Los Pozos" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Valle Grande. Seeds bright, solid red. Cultivated. Seed.
475926. KSBScC 340. Bolivia. Collected April 13, 1980. Market, "Florida" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Cochabamba. Seeds red and white. Cultivated. Seed.
475927. KSBScC 341. Bolivia. Collected April 13, 1980. Market, "Florida" Santa Cruz. Grown north of Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds small to medium, bright red. Cultivated. Seed.
475928. KSBScC 342. Bolivia. Collected April 13, 1980. Market, "Florida" Santa Cruz. Grown north of Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds red and white, mostly red. Cultivated. Seed.
475929. KSBScC 343. Bolivia. Collected April 13, 1980. Market, "Florida" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Valle Grande. Seeds red and white, mostly red. Cultivated. Seed.
475930. KSBScC 344. Bolivia. Collected April 13, 1980. Market, "Florida" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from San Rafael de Chiquitos. Seeds mixture of red, and red and white. Cultivated. Seed.
475931. KSBScC 345. Bolivia. Collected April 13, 1980. Market, "Florida" Santa Cruz. Grown near Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds large, mixture of red, and red and white. Cultivated. Seed.
475932. KSBScC 346. Bolivia. Collected April 13, 1980. Market, "Florida" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Santa Cruz. Seeds mixture of brownish-red, and red

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and white. Cultivated. Seed.

475933. KSBScC 348. Bolivia. Collected April 13, 1980. Market, "16 de Julio" Santa Cruz. Grown at Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Seeds purplish red and white. Cultivated. Seed.
475934. KSBScC 349. Bolivia. Collected April 13, 1980. Market, "16 de Julio" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Valle Grande. Seeds large but slender, brown. Cultivated. Seed.
475935. KSBScC 350. Bolivia. Collected April 13, 1980. Market, "16 de Julio" Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, D.J. Banks, A. Schinini, L. Coradin. Originally from Valle Grande. Seeds large, dark brown. Cultivated. Seed.
475936. BZC 351. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Cochabamba. Seeds solid brown. Cultivated. Seed.
475937. BZC 352. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Cochabamba. Seeds red and white. Cultivated. Seed.
475938. BZC 353. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Seeds red and white. Cultivated. Seed.
475939. BZC 354. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Cochabamba. Seeds red and white. Cultivated. Seed.
475940. BZC 355. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Sucre. Seeds solid brown. Local name Crema. Cultivated. Seed.
475941. BZC 356. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Santa Cruz. Seeds red and white - Overo. Cultivated. Seed.
475942. BZC 357. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Sucre. Seeds red and pink. Local name Overo. Cultivated. Seed.

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475943. BZC 358. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Seeds red and white. Local name Overo. Cultivated. Seed.
475944. BZC 359. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Tarija. Seeds red and white. Local name Overo. Cultivated. Seed.
475945. BZC 360. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Seeds medium, solid brown. Local name Crema. Cultivated. Seed.
475946. BZC 361. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Cochabamba. Seeds solid brown. Cultivated. Seed.
475947. BZC 362. Bolivia. Collected April 18, 1980. Market, Camacho, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Seeds large, red and white. Local name Overo. Cultivated. Seed.
475948. BZC 363. Bolivia. Collected April 18, 1980. Market, Lanza sec. #1, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Bermejo. Seeds solid brown. Local name Crema. Cultivated. Seed.
475949. BZC 364. Bolivia. Collected April 18, 1980. Market, Lanza sec. #1, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Santa Cruz. Seeds red and white. Local name Overo. Cultivated. Seed.
475950. BZC 365. Bolivia. Collected April 18, 1980. Market, Lanza sec. #1, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Tarija. Seeds pink and red. Local name Rosado. Cultivated. Seed.
475951. BZC 366. Bolivia. Collected April 18, 1980. Market, Lanza sec. #1, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Sucre. Seeds solid brown. Local name Crema. Cultivated. Seed.
475952. BZC 367. Bolivia. Collected April 18, 1980. Market, Lanza sec. #1, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Sucre. Seeds large, solid brown. Local name Crema. Cultivated. Seed.
475953. BZC 368. Bolivia. Collected April 18, 1980. Market, Uruguay, La Paz. Collected by D.J. Banks, H. Zurita, L.



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- Coradin. Seeds solid brown. Local name Crema. Cultivated. Seed.
475954. BZC 369. Bolivia. Collected April 18, 1980. Market, Uruguay, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Seeds solid brown. Local name Crema. Cultivated. Seed.
475955. BZC 370. Bolivia. Collected April 18, 1980. Market, Uruguay, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Seeds solid brown. Local name Crema. Cultivated. Seed.
475956. BZC 371. Bolivia. Collected April 18, 1980. Market, Uruguay, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Cochabama. Seeds red and white. Local name Overo. Cultivated. Seed.
475957. BZC 372. Bolivia. Collected April 18, 1980. Market, Uruguay, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Santa Cruz. Seeds red and white. Local name Colorado. Cultivated. Seed.
475958. BZC 373. Bolivia. Collected April 18, 1980. Market, Uruguay, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Santa Cruz. Seeds red and white. Local name Overo. Cultivated. Seed.
475959. BZC 374. Bolivia. Collected April 18, 1980. Market, Uruguay, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Santa Cruz. Seeds large, solid brown. Local name Crema. Cultivated. Seed.
475960. BZC 375. Bolivia. Collected April 18, 1980. Market, Rodriques, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Santa Cruz. Seeds small, red. Local name Colorado. Cultivated. Seed.
475961. BZC 376. Bolivia. Collected April 18, 1980. Market, Rodriques, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Originally from Tarija. Seeds solid brownish-red. Local name Colorado. Cultivated. Seed.
475962. BZC 377. Bolivia. Collected April 18, 1980. Market, Rodriques, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Seeds solid red. Local name Colorado. Cultivated. Seed.
475963. BZC 378. Bolivia. Collected April 18, 1980. Market, Rodriques, La Paz. Collected by D.J. Banks, H. Zurita, L. Coradin. Seeds large, brown. Local name Crema. Cultivated. Seed.

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475964. BZCJ 379. Bolivia. Collected April 19, 1980. MACA Experimental Station, San Pedro (Coroico). Collected by D.J. Banks, H. Zurita, L. Coradin, and L. Janicki. Originally from local farmer below 1800m elevation. Virigina type. Leafspot present. Harvested from living plants. Rhizobial vial 261. Cultivated. Seed.
475965. BZCJ 380. Bolivia. Collected April 20, 1980. San Pablo (Coroico). 1980m. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds dark brown. Cultivated. Seed.
475966. BZCJ 381. Bolivia. Collected April 20, 1980. Yalaca (Coroico). Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds dark brown. Local name Criollo. Cultivated. Seed.
475967. BZCJ 382. Bolivia. Collected April 20, 1980. Munaipata. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds red. Local name Criollo. Cultivated. Seed.
475968. BZCJ 383. Bolivia. Collected April 20, 1980. Munaipata. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Originally from Cuzco, Peru. Seeds white. Local name Cusqueno. Cultivated. Seed.
475969. BZCJ 384. Bolivia. Collected April 20, 1980. Market, Coroico. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds red and white. Local name Overo. Cultivated. Seed.
475970. BZCJ 385. Bolivia. Collected April 20, 1980. Market, Plaza de Coroico. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds brownish-red. Local name Colorado. Cultivated. Seed.
475971. BZCJ 386. Bolivia. Collected April 21, 1980. San Pedro, between Coroico and Caranovi. 900m. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds brown. Cultivated. Seed.
475972. BZCJ 387. Bolivia. Collected April 21, 1980. San Pedro. 900m. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds flesh colored. Cultivated. Seed.
475973. BZCJ 388. Bolivia. Collected April 21, 1980. IBTA Vivero Experimental Station, Santa Ana. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds dark brown. Local name Crema. Cultivated. Seed.
475974. BZCJ 390. Bolivia. Collected April 21, 1980. Market, Caranavi. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Originally from Sucre. Seeds red and white.

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- Local name Overo. Cultivated. Seed.
475975. BZCJ 391. Bolivia. Collected April 21, 1980. Market, Caranavi. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Said to be local type. Seeds solid brown. Local name Crema. Cultivated. Seed.
475976. BZCJ 392. Bolivia. Collected April 22, 1980. Near Chinese Tea Mission, Caranavi. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Producer: Jasefin Jarandilla de Quispe. Maturity five months. Seeds flesh colored. Local name Moro Blanco. Cultivated. Seed.
475977. BZCJ 393. Bolivia. Collected April 22, 1980. Near Chinese Tea Mission, Caranavi. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Maturity three months. Seeds flesh colored. Local name Gonori. Cultivated. Seed.
475978. BZCJ 394. Bolivia. Collected April 22, 1980. Bella Vista. Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds dark flesh colored. Local name Crema-rojo. Cultivated. Seed.
475979. BZCJ 397. Bolivia. Collected April 22, 1980. Santa Ana, near Puerto Linares (Alto Beni). Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Collected from green plants. Seeds red. Local name Rojo. Rhizobial vial 262. Cultivated. Seed.
475980. BZCJ 398. Bolivia. Collected April 22, 1980. Santa Ana, near Puerto Linares (Alto Beni). Collected by D.J. Banks, H. Zurita, L. Coradin, L. Janicki. Seeds flesh colored. Local name Crema. Cultivated. Seed.
475981. KSSc 399. Bolivia. Collected April 21, 1980. Farmer, San Francisco, through Army Commandant, San Matias. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Collected from farmer at San Francisco. Seeds red and white. Local name Overo. Cultivated. Seed.
475982. KSSc 400. Bolivia. Collected April 23, 1980. Santiago, Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Pintado (red and white) plants with early leafspot and insect damage. Rhizobial vial 246. Cultivated. Seed.
475983. KSSc 401. Bolivia. Collected April 28, 1980. Mennonite Colony north of San Jose. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Originally from Mexico. Seeds red. Pods Valencia type. Cultivated. Seed.
475984. KSSc 402. Bolivia. Collected April 29, 1980. Natividad, Santa Cruz. Collected by A. Krapovickas, C.E. Simpson, A.

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Schinini. Bought from farmer. Seeds red and white. Local name Overo. Cultivated. Seed.

475985 TO 476014. *Arachis* sp. (Fabaceae).

From Bolivia. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

475985. KSSc 36007. Bolivia. Collected April 17, 1980. Cerrado, 1 km W of airport on way to curiche at San Matias, Santa Cruz. 270m. Lat. 16 deg. 22' S, Long. 58 deg. 25' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 231. Perennial Herb. Wild. Seed.
475986. KSSc 36008. Bolivia. Collected April 18, 1980. Runway at San Matias airport, Santa Cruz. 270m. Lat. 16 deg. 22' S, Long. 58 deg. 25' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Plants numerous, prostrate. Flowers bright orange, fading in mid-afternoon. Rhizobial vial 232. Perennial Herb. Wild. Seed.
475987. KSSc 36009. Bolivia. Collected April 19, 1980. South southwest, 5km of San Matias, Santa Cruz. 265m. Lat. 16 deg. 23' S, Long. 58 deg. 26' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Found around a small lake in pure sand, about 100 meters west northwest of lake. Plants prostrate with long lateral branches, pubescent. Flowers orange. Plants in forest more upright like KSSc 36007. Rhizobial vial 233. Perennial Herb. Wild. Plants.
475988. KSSc 36010. Bolivia. Collected April 20, 1980. Curiche, 3.5km NNW of San Matias, Santa Cruz. 350m. Lat. 16 deg. 21' S, Long. 58 deg. 24' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 234. Perennial Herb. Wild. Plants.
475989. KSSc 36011. Bolivia. Collected April 20, 1980. Curiche, 3.5km NNW of San Matias, Santa Cruz. 350m. Lat. 16 deg. 21' S, Long. 58 deg. 24' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Leaflets rounded and large. Flowers orange, larger than KSSc 36010. Rhizobial vial 235. Perennial Herb. Wild. Plants.
475990. KSSc 36012. Bolivia. Collected April 20, 1980. Curiche, 3.5km NNW of San Matias, Santa Cruz. 350m. Lat. 16 deg. 21' S, Long. 58 deg. 24' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 236. Perennial Herb. Wild. Plants.

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475991. KSSc 36012 SE. Bolivia. Collected April 20, 1980. North northwest, 3.5km of San Matias, Santa Cruz. 350m. Lat. 16 deg. 21' S, Long. 58 deg. 24' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Plants growing in water, more erect than KSSc 36012. Perennial Herb. Wild. Plants.
475992. KSSc 36013. Bolivia. Collected April 20, 1980. North edge of San Matias, 300 meters from the square, Santa Cruz. 275m. Lat. 16 deg. 22' S, Long. 58 deg. 24' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Plants prostrate. Leaflets large, rounded. Flowers large, orange. Rhizobial vial 237. Perennial Herb. Wild. Plants.
475993. KSSc 36014. Bolivia. Collected April 21, 1980. Elevated roadside, middle of curiche, 1 km N of San Matias, Santa Cruz. 275m. Lat. 16 deg. 21' S, Long. 58 deg. 24' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 238. Perennial Herb. Wild. Plants.
475994. KSSc 36015. Bolivia. Collected April 21, 1980. SE, 2km of El Central, 300 meters from Rio Vrasibiqui, Robore, Santa Cruz. 300m. Lat. 18 deg. 21' S, Long. 59 deg. 45' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Received as *A. cardenasii*. Rhizobial vial 239. Perennial Herb. Wild. Seed.
475995. KSSc 36016. Bolivia. Collected April 22, 1980. Small stream, 2km NNW of Robore, Santa Cruz. 350m. Lat. 18 deg. 20' S, Long. 59 deg. 46' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Received as *A. cardenasii*. Rhizobial vial 240. Perennial Herb. Wild. Seed.
475996. KSSc 36017. Bolivia. Collected April 22, 1980. Across (east) railroad, 3km north northwest of Robore, Santa Cruz. 360m. Lat. 18 deg. 20' S, Long. 59 deg. 46' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Received as *A. cardenasii*. Mainstem short, typical of *A. cardenasii*, but tall mainstem was found in same population. Rhizobial vial 241. Perennial Herb. Wild. Plants.
475997. KSSc 36018. Bolivia. Collected April 22, 1980. Lake Sucuare, 5km S of Robore, Santa Cruz. 260m. Lat. 18 deg. 21' S, Long. 59 deg. 45' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Received as *A. cardenasii*. Soil gray, hard clay. Flowers orange. Rhizobial vial 242. Perennial Herb. Wild. Seed.
475998. KSSc 36019. Bolivia. Collected April 22, 1980. Mountain valley of Rio Robore, 1 km ENE of Robore, Santa Cruz. 375m. Lat. 18 deg. 21' S, Long. 59 deg. 45' W. Collected

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- by A. Krapovickas, C.E. Simpson, A. Schinini. Received as *A. cardenasii*. Rhizobial vial 243. Perennial Herb. Wild. Seed.
475999. KSSc 36020. Bolivia. Collected April 23, 1980. East, 6km of Robore, on road to Santiago at small river, Santa Cruz. 650m. Lat. 18 deg. 21' S, Long. 59 deg. 44' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Received as *A. cardenasii*. Rhizobial vial 244. Perennial Herb. Wild. Seed.
476000. KSSc 36021. Bolivia. Collected April 23, 1980. Small stream (Rio Santiago), 300m south of square, Santiago, Santa Cruz. 700m. Lat. 18 deg. 20' S, Long. 59 deg. 38' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Plants almost glabrous. Flowers orange. Rhizobial vial 245. Perennial Herb. Wild. Seed.
476001. KSSc 36022. Bolivia. Collected April 24, 1980. In streets of Robore, 2 blocks north, 1 block east of square, Santa Cruz. 350m. Lat. 18 deg. 20' S, Long. 59 deg. 46' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Received as *A. cardenasii*. Rhizobial vial 247. Perennial Herb. Wild. Seed.
476002. KSSc 36023. Bolivia. Collected April 24, 1980. North, 100 meters of train depot, Robore, Santa Cruz. 350m. Lat. 18 deg. 20' S, Long. 59 deg. 46' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Received as *A. cardenasii*. Rhizobial vial 248. Perennial Herb. Wild. Seed.
476003. KSSc 36024. Bolivia. Collected April 25, 1980. At 263 kilometer marker of RR, 2km W of San Jose de Chiquitos, Santa Cruz. 370m. Lat. 17 deg. 50' S, Long. 60 deg. 45' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 249. Perennial Herb. Wild. Seed.
476004. KSSc 36025. Bolivia. Collected April 26, 1980. Estancia El Cinco, 5km north of San Jose de Chiquitos, Santa Cruz. 340m. Lat. 17 deg. 50' S, Long. 60 deg. 43' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. At second curiche west of ranch house. Estancia also known as La Havanna. Flowers orange. Rhizobial vial 250. Perennial Herb. Wild. Seed.
476005. KSSc 36026. Bolivia. Collected April 27, 1980. Cerrado, 8km NE of San Jose de Chiquitos on road to El Rancho de Securo. 350m. Lat. 17 deg. 50' S, Long. 60 deg. 39' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. On return trip, determined was 8-10km from San Jose, but was at first pampa with pure white sand. Flowers orange. Rhizobial vial 251. Perennial Herb. Wild. Seed.

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476006. KSSc 36027. Bolivia. Collected April 27, 1980. Ranch of Dr. Lopez, 30km NE of San Jose de Chiquitos, Santa Cruz. 340m. Lat. 17 deg. 43' S, Long. 60 deg. 29' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 252. Perennial Herb. Wild. Seed.
476007. KSSc 36028. Bolivia. Collected April 28, 1980. Small arroyo, 4km N of San Jose de Chiquitos, Santa Cruz. 350m. Lat. 17 deg. 49' S, Long. 60 deg. 45' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 253. Perennial Herb. Wild. Seed.
476008. KSSc 36029. Bolivia. Collected April 28, 1980. Road to San Ignacio, 6 1/2km north of San Jose de Chiquitos, Santa Cruz. 320m. Lat. 17 deg. 49' S, Long. 60 deg. 45' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. In white sand. Rhizobial vial 254. Perennial Herb. Wild. Plants.
476009. KSSc 36030. Bolivia. Collected April 28, 1980. Road to San Ignacio, 18km north of San Jose de Chiquitos, Santa Cruz. 310m. Lat. 17 deg. 42' S, Long. 60 deg. 50' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 255. Perennial Herb. Wild. Seed.
476010. KSSc 36031. Bolivia. Collected April 29, 1980. Gasoline station, San Jose de Chiquitos, Santa Cruz. 350m. Lat. 17 deg. 50' S, Long. 60 deg. 45' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 256. Perennial Herb. Wild. Seed.
476011. KSSc 36032. Bolivia. Collected April 29, 1980. Road to Natividad, 15km south of San Jose de Chiquitos, Santa Cruz. 370m. Lat. 17 deg. 58' S, Long. 60 deg. 47' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Flowers orange. Rhizobial vial 257. Perennial Herb. Wild. Seed.
476012. KSSc 36033. Bolivia. Collected April 29, 1980. Road to Natividad, 17km south of San Jose de Chiquitos, Santa Cruz. 375m. Lat. 17 deg. 58' S, Long. 60 deg. 47' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Flowers yellow and orange, mostly orange. Rhizobial vial 258. Perennial Herb. Wild. Seed.
476013. KSSc 36034. Bolivia. Collected April 29, 1980. Road to San Jose de Chiquitos, 6km NE of Natividad (21km SSW of San Jose). 385m. Lat. 17 deg. 57' S, Long. 60 deg. 49' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Flowers yellow and orange, mostly yellow. Rhizobial vial 259. Perennial Herb. Wild. Seed.

475985 TO 476014-continued

476014.. KSSc 36035. Bolivia. Collected April 29, 1980. West, 2km of Natividad, Santa Cruz. 400m. Lat. 17 deg. 57' S, Long. 60 deg. 50' W. Collected by A. Krapovickas, C.E. Simpson, A. Schinini. Rhizobial vial 260. Perennial Herb. Wild. Seed.

476015 TO 476041. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Peru. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

476015. SP 403. Peru. Collected May 14, 1980. Bought from "Chipy" Company, Lima. Collected by C.E. Simpson, J. Pietrarelli. Originally from south of Lima. Mixed colors. Cultivated. Seed.

476016. SP 404. Peru. Collected May 14, 1980. Bought from "Chipy" Company, Lima. Collected by C.E. Simpson, J. Pietrarelli. Originally from south of Lima. Seeds red. Cultivated. Seed.

476017. SPA 405. Peru. Collected May 16, 1980. Central market, Cuzco. Collected by C.E. Simpson, J. Pietrarelli, V.O. Arriola. Originally from Valle de la Convencion, Quillabamba. Seeds red. Local name Aqua Amerilla. Cultivated. Seed.

476018. SPA 406. Peru. Collected May 16, 1980. Central market, Cuzco. Collected by C.E. Simpson, J. Pietrarelli, V.O. Arriola. Originally from Valle de la Convencion, Quillabamba. Seeds red. Cultivated. Seed.

476019. SPA 407. Peru. Collected May 16, 1980. Central market, Cuzco. Collected by C.E. Simpson, J. Pietrarelli, V.O. Arriola. Originally from Valle de la Convencion, Quillabamba. Seeds red. Cultivated. Seed.

476020. SPA 408. Peru. Collected May 16, 1980. Central market, Cuzco. Collected by C.E. Simpson, J. Pietrarelli, V.O. Arriola. Originally from Valle de la Convencion, Quillabamba. Seeds reddish-brown. Cultivated. Seed.

476021. SPA 409. Peru. Collected May 16, 1980. Central market, Cuzco. Collected by C.E. Simpson, J. Pietrarelli, V.O. Arriola. Originally from Quillabamba. Seeds red. Cultivated. Seed.

476022. SPA 410. Peru. Collected May 19, 1980. Market, Modelo, Quillabamba. Collected by C.E. Simpson, J. Pietrarelli,



476015 TO 476041-continued

- V.O. Arriola. Seeds reddish-brown. Cultivated. Seed.
476023. SPA 411. Peru. Collected May 19, 1980. Market, Maracana, Quillabamba. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Seeds light red. Cultivated. Seed.
476024. SPA 412. Peru. Collected May 19, 1980. Market, Maracana, Quillabamba. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Seeds red. Cultivated. Seed.
476025. SPA 413. Peru. Collected May 19, 1980. Market, Maracana, Quillabamba. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Seeds dark brown and dark purple. Cultivated. Seed.
476026. SPA 414. Peru. Collected May 20, 1980. Valle de la Convencion, Chontayoc, Sector Cinguitone. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Seeds red. Planted in October, harvested in February. Cultivated. Seed.
476027. SPA 415. Peru. Collected May 20, 1980. Valle de la Convencion, Misalniyoc, Sector Illapani. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Bought from farmer, E. Pocho. Seeds red, cream, dark purple and light purple. Planted in October, harvested in February. Rhizobial vial 285. Cultivated. Seed.
476028. SPA 416. Peru. Collected May 20, 1980. Valle de la Convencion, Maniccyo. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Bought from farmer, C. Azurin. Seeds red. Cultivated. Seed.
476029. SPA 417. Peru. Collected May 20, 1980. Valle de la Convencion, Chirumbia. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Seeds dark red. Local name Rastrata. Cultivated. Seed.
476030. SPA 418. Peru. Collected May 20, 1980. Valle de la Convencion, Chirumbia. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Seeds red. Local name Mani Parado. Cultivated. Seed.
476031. SPA 419. Peru. Collected May 20, 1980. Valle de la Convencion, Loroquachaua. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Seeds white. Local name Espanola. Cultivated. Seed.
476032. SPA 420. Peru. Collected May 20, 1980. Valle de la Convencion, Loroquachaua. Collected by C.E. Simpson, J. Pietrarelly, V.O. Arriola. Seeds red. Cultivated. Seed.
476033. SPA 421. Peru. Collected May 20, 1980. Valle de la

476015 TO 476041-continued

Convencion, Chirumbia (Almacen). Collected by C.E. Simpson, J. Pietrarelli, V.O. Arriola. Seeds dark brown. Cultivated. Seed.

476034. SPA 422. Peru. Collected May 20, 1980. Experimental Station Sahuayaco, Sector Vilcabamba. Collected by C.E. Simpson, J. Pietrarelli, V.O. Arriola. Seeds dark red. Cultivated. Seed.

476035. SP 423. Peru. Collected May 22, 1980. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli. Seeds red, some mixtures. Cultivated. Seed.

476036. SP 424. Peru. Collected May 22, 1980. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli. Seeds red, some mixtures. Cultivated. Seed.

476037. SP 425. Peru. Collected May 22, 1980. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli. Originally from north Chiclayo. Seeds reddish-brown. Cultivated. Seed.

476038. SP 426. Peru. Collected May 22, 1980. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli. Seeds red. Cultivated. Seed.

476039. SP 427. Peru. Collected May 22, 1980. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli. Seeds red. Cultivated. Seed.

476040. SP 428. Peru. Collected May 22, 1980. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli. Seeds reddish-brown, some mixtures. Cultivated. Seed.

476041. SP 429. Peru. Collected May 22, 1980. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli. Seeds reddish-brown. Cultivated. Seed.

476042 TO 476046. *Arachis helodes* Mart. ex Hoehne (Fabaceae).

From Brazil. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

476042. VSGr 6325. Brazil. Collected August 20, 1981. Football field, Praca de Bandeira, Sao Francisco Do Leverger, Mato Grosso. 150m. Lat. 15 deg. 52' S, Long. 56 deg. 04' W, 24km south of Cuiaba. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Soil a gray silty loam, very dry and hard. Plants competing in a *Burmuda* grass sod. Rhizobial vial 302. Perennial Herb. Wild. Seed.

476042 TO 476046-continued

476043. VSGr 6326. Brazil. Collected August 20, 1981. Entrance to Cemetery, Sao Francisco Do Leverger, Mato Grosso. 160m. Lat. 15 deg. 52' S, Long. 56 deg. 04' W. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Perennial Herb. Wild. Seed.
476044. VSGr 6330. Brazil. Collected August 21, 1981. Road to Pocone, approx. 62km SW of Cuiaba, Mato Grosso. 170m. Lat. 16 deg. 00' S, Long. 56 deg. 29' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. At Rio Bento Gomes and entrance to Fazenda Cutia. Soil a very fine sand, white or gray. Plants growing along side of elevated road. Rhizobial vial 303. Perennial Herb. Wild. Seed.
476045. VSGr 6331. Brazil. Collected August 21, 1981. Fazenda Santa Fe & 1 km W of Varzea Comprida, 13km S of Pocone, Mato Grosso. 170m. Lat. 16 deg. 20' S, Long. 56 deg. 44' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil a very fine sandy loam, gray. Site dry and very hard. Rhizobial vial 304. Perennial Herb. Wild. Seed.
476046. VSGr 6337. Brazil. Collected August 22, 1981. WSW, 126km of Cuiaba, road to Caceres and 22km W of Sete Porcas, Mato Grosso. 220m. Lat. 15 deg. 56' S, Long. 57 deg. 08' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. In low area with white sand. Perennial Herb. Wild. Seed.

476047 TO 476054. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Brazil. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

476047. VSGr 6358. Brazil. Collected August 26, 1981. Vendor, Porto Esperidiao, Mato Grosso. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Simpson no. S 581. Seeds small to medium, red. Cultivated. Seed.
476048. VSGr 6359. Brazil. Collected August 26, 1981. Vendor, Porto Esperidiao, Mato Grosso. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Simpson no. S 582. Seeds small to medium, tan or flesh colored. Cultivated. Seed.
476049. VSGr 6391. Brazil. Collected August 28, 1981. Cassalvasco, Mato Grosso. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Simpson no. S 584. Seeds medium, red. Cultivated. Seed.
476050. VSGr 6392. Brazil. Collected August 28, 1981. Cassalvasco, Mato Grosso. Collected by J.F.M. Valls, C.E.

476047 TO 476054-continued

Simpson, and A. Gripp. Simpson no. S 585. Seeds large, red and white - Overo. Cultivated. Seed.

476051. VSGr 6397. Brazil. Collected August 29, 1981. Farmer, 5km north of Cassalvasco, Mato Grosso. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Simpson no. S 586. Seeds large, red and white - Overo. Cultivated. Seed.

476052. VSGr 6398. Brazil. Collected August 29, 1981. Farmer, 5km north of Cassalvasco, Mato Grosso. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Simpson no. S 587. Seeds medium, red. Cultivated. Seed.

476053. VSGr 6399. Brazil. Collected August 29, 1981. Farmer, 5 1/2km north of Cassalvasco, Mato Grosso. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Simpson no. S 588. Seeds medium, red or brownish red. Cultivated. Seed.

476054. VSGr 6400. Brazil. Collected August 29, 1981. Farmer, 5 1/2km north of Cassalvasco, Mato Grosso. Collected by J.F.M. Valls, C.E. Simpson, and A. Gripp. Simpson no. S 589. Seeds large, tan or flesh colored. Cultivated. Seed.

476055 TO 476102. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Brazil. Collected by L. Coradin, A.R. Miranda, G.P. Silva & J. Valls; Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa Agropecuaria; CEP 70.000 - Brasilia DF. Received through IBPGR, FAO, Rome, Italy, and C.E. Simpson, Texas A&M Univ., Stephenville, TX. Received December 1981.

476055. A. Miranda 79. Brazil. Brasilia. CENARGEN. 03328 010189. C.E. Simpson. S 530. Collected May 1980. Acre. Cultivated. Seed.

476056. A. Miranda 80. Brazil. Brasilia. CENARGEN. 03328 010219. C.E. Simpson. S 531. Collected May 1980. Acre. Cultivated. Seed.

476057. A. Miranda 76. Brazil. Brasilia. CENARGEN. 03328 010146. C.E. Simpson. S 532. Collected May 1980. Acre. Cultivated. Seed.

476058. A. Miranda 118. Brazil. Brasilia. CENARGEN. 03328 010324. C.E. Simpson. S 534. Collected May 1980. Rondonia. Cultivated. Seed.

476059. A. Miranda 119. Brazil. Brasilia. CENARGEN. 03328 010332. C.E. Simpson. S 535. Collected May 1980. Rondonia. Cultivated. Seed.

476055 TO 476102-continued

476060. A. Miranda 120. Brazil. Brasilia. CENARGEN. 03328 010341.  
C.E. Simpson. S 536. Collected May 1980. Rondonia.  
Cultivated. Seed.
476061. A. Miranda 136. Brazil. Brasilia. CENARGEN. 03328 010201.  
C.E. Simpson. S 537. Collected May 1980. Acre. Cultivated.  
Seed.
476062. A. Miranda 139. Brazil. Brasilia. CENARGEN. 03328 010286.  
C.E. Simpson. S 538. Collected May 1980. Rondonia.  
Cultivated. Seed.
476063. A. Miranda 142. Brazil. Brasilia. CENARGEN. 03328 010171.  
C.E. Simpson. S 540. Collected May 1980. Acre. Cultivated.  
Seed.
476064. A. Miranda 144. Brazil. Brasilia. CENARGEN. 03328 010154.  
C.E. Simpson. S 541. Collected May 1980. Acre. Cultivated.  
Seed.
476065. Brazil. Brasilia. CENARGEN. 03328 011363. C.E. Simpson.  
S 542. Collected September 15, 1980. Minas Gerais.  
Donated by UNIA. Cultivated. Seed.
476066. L. Coradin 2455. Brazil. Brasilia. CENARGEN. 03328  
011355. C.E. Simpson. S 543. Collected May 21, 1980.  
Pernambuco. Cultivated. Seed.
476067. L. Coradin 2453. Brazil. Brasilia. CENARGEN. 03328  
011339. C.E. Simpson. S 544. Collected May 21, 1980.  
Pernambuco. Cultivated. Seed.
476068. L. Coradin 2454. Brazil. Brasilia. CENARGEN. 03328  
011347. C.E. Simpson. S 545. Collected May 21, 1980.  
Pernambuco. Cultivated. Seed.
476069. J. Valls 5678. Brazil. Brasilia. CENARGEN. 03328 011444.  
C.E. Simpson. S 546. Parana. Cultivated. Seed.
476070. J. Valls 5680. Brazil. Brasilia. CENARGEN. 03328 011452.  
C.E. Simpson. S 547. Parana. Cultivated. Seed.
476071. J. Valls 5790. Brazil. Brasilia. CENARGEN. 03328 011509.  
C.E. Simpson. S 548. Rio Grande do Sul. Cultivated. Seed.
476072. J. Valls 5814. Brazil. Brasilia. CENARGEN. 03328 011525.  
C.E. Simpson. S 549. Rio Grande do Sul. Cultivated. Seed.
476073. J. Valls 6098. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 550. Cultivated. Seed.
476074. J. Valls 6099. Brazil. Brasilia. CENARGEN. C.E. Simpson.

476055 TO 476102-continued

- S 551. Cultivated. Seed.
476075. J. Valls 6164. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 552. Cultivated. Seed.
476076. J. Valls 6197. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 553. Cultivated. Seed.
476077. J. Valls 6224. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 554. Cultivated. Seed.
476078. J. Valls 6226. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 555. Cultivated. Seed.
476079. J. Valls 6228. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 556. Cultivated. Seed.
476080. J. Valls 6229. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 557. Cultivated. Seed.
476081. J. Valls 6230. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 558. Cultivated. Seed.
476082. J. Valls 6267. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 559. Cultivated. Seed.
476083. J. Valls 6268. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 560. Cultivated. Seed.
476084. J. Valls 6272. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 561. Cultivated. Seed.
476085. J. Valls 6265. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 562. Cultivated. Seed.
476086. J. Valls 6196. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 564. Cultivated. Seed.
476087. J. Valls 6225. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 565. Cultivated. Seed.
476088. J. Valls 6264. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 566. Cultivated. Seed.
476089. J. Valls 6280. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 567. Cultivated. Seed.
476090. J. Valls 6294. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 568. Cultivated. Seed.
476091. J. Valls 6295. Brazil. Brasilia. CENARGEN. C.E. Simpson.  
S 569. Cultivated. Seed.

476055 TO 476102-continued

476092. J. Valls 6296. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 570. Cultivated. Seed.
476093. J. Valls 6297. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 571. Cultivated. Seed.
476094. J. Valls 6298. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 572. Cultivated. Seed.
476095. J. Valls 6299. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 573. Cultivated. Seed.
476096. J. Valls 6300. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 574. Cultivated. Seed.
476097. J. Valls 6301. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 575. Cultivated. Seed.
476098. J. Valls 6303. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 576. Cultivated. Seed.
476099. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 577. Cultivated. Seed.
476100. G. Silva 303. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 578. Cultivated. Seed.
476101. G. Silva 250. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 579. Cultivated. Seed.
476102. G. Silva 251. Brazil. Brasilia. CENARGEN. C.E. Simpson. S 580. Cultivated. Seed.

476103 TO 476131. *Arachis* sp. (Fabaceae).

From Brazil. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

476103. VSGr 6306. Brazil. Collected August 19, 1981. Hwy BR-364, from Brasilia to Cuiaba, 3.2km E of Jatai River, Jatai, Goias. 700m. Lat. 17 deg. 54' S, Long. 51 deg. 43' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Plants rhizomatous. Perennial Herb. Wild. Plants.
476104. VSGr 6332. Brazil. Collected August 22, 1981. Approx 13km WSW of Cuiaba River, rd from Cuiaba to Caceres, Mato Grosso. 180m. Lat. 15 deg. 40' S, Long. 56 deg. 15' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Plants found in a gravel bed at the edge of a low area. Plants

476103 TO 476131-continued

only found out of area flooded in wet season. Perennial Herb. Wild. Plants.

476105. VSGR 6340. Brazil. Collected August 23, 1981. Road to Cuiaba, approx. 29km ESE of Square at Caceres, Mato Grosso. 170m. Lat. 16 deg. 16' S, Long. 57 deg. 37' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. At entrance to Fazenda Primevra. Soil a gray sandy loam. Rhizobial vial 305. Perennial Herb. Wild. Seed.
476106. VSGR 6344. Brazil. Collected August 24, 1981. Approx. 20km SSW of Paraguay River Bridge at Caceres, Mato Grosso. 170m. Lat. 16 deg. 06' S, Long. 57 deg. 51' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Entrance to Fazenda Santo Andre on road BR-070 to San Matias, Bolivia. Soil a gray sandy loam, but area surrounded by a red sandy loam. Rhizobial vial 306. Perennial Herb. Wild. Seed.
476107. VSGR 6345. Brazil. Collected August 24, 1981. Road to San Francisco, approx. 1 km N of San Matias, Santa Cruz, Bolivia. 160m. Lat. 16 deg. 21' S, Long. 58 deg. 24' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. On elevated road in middle of curiche. Soil a gray sandy clay. Perennial Herb. Wild. Seed.
476108. VSGR 6351. Brazil. Collected August 25, 1981. Road to Pt. Esperidiao, approx. 20km NW of Caceres, Mato Grosso. 130m. Lat. 15 deg. 56' S, Long. 57 deg. 48' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. At small store and a place called Pe-de-anta. Soil a gray fine sand, hard and dry. Rhizobial vial 307. Perennial Herb. Wild. Seed.
476109. VSGR 6352. Brazil. Collected August 25, 1981. Approx. 3km N of road from Caceres to Pto. Esperidiao, Mato Grosso. 130m. Lat. 15 deg. 56' S, Long. 57 deg. 47' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Site of VSGR 6351 at a place called Caicara. Soil a gray fine sand. Rhizobial vial 308. Perennial Herb. Wild. Seed.
476110. VSGR 6355. Brazil. Collected August 25, 1981. Road to Pto. Esperidiao, approx. 18.6km NW of Caceres, Mato Grosso. 130m. Lat. 15 deg. 56' S, Long. 57 deg. 48' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil a gray fine sand. Rhizobial vial 309. Perennial Herb. Wild. Seed.
476111. VSGR 6356. Brazil. Collected August 25, 1981. Road to Pto. Esperidiao, approx. 49km WNW of Caceres, Mato Grosso. 220m. Lat. 15 deg. 49' S, Long. 58 deg. 02' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil a brown to gray fine sandy loam. Vegetation Cerrado. Perennial Herb. Wild. Seed.



476103 TO 476131-continued

476112. VSGr 6357. Brazil. Collected August 26, 1981. In the streets of Porto Esperidiao, Mato Grosso. 155m. Lat. 15 deg. 52' S, Long. 58 deg. 28' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil a red sandy clay with much gravel. Rhizobial vial 310. Perennial Herb. Wild. Seed.
476113. VSGr 6361. Brazil. Collected August 26, 1981. Road to Pontes e Lacerdo, approx. 14km NW of Porto Esperidiao, Mato Grosso. 220m. Lat. 15 deg. 49' S, Long. 58 deg. 35' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil a gray sand. Rhizobial vial 311. Perennial Herb. Wild. Seed.
476114. VSGr 6366. Brazil. Collected August 26, 1981. Road to Pontes e Lacerdo, approx. 66km NW of Porto Esperidiao, Mato Grosso. 200m. Lat. 15 deg. 36' S, Long. 58 deg. 53' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil a gray fine sand. Perennial Herb. Wild. Seed.
476115. VSGr 6380. Brazil. Collected August 27, 1981. Vila Bela Airport, Mato Grosso. 195m. Lat. 15 deg. 01' S, Long. 59 deg. 56' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil a gray fine sand, dry and very hard. Rhizobial vial 312. Wild. Seed.
476116. VSGr 6389. Brazil. Collected August 28, 1981. Approx. 71km S of Vila Bela, Mato Grosso. 210m. Lat. 15 deg. 19' S, Long. 60 deg. 06' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Edge of low area where the cerrado breaks into open areas. Soil dark gray fine sand. Wild. Seed.
476117. VSGr 6390. Brazil. Collected August 28, 1981. Approx. 75km S of Vila Bela, 3km N of Palmerito, Mato Grosso. 210m. Lat. 15 deg. 20' S, Long. 60 deg. 06' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil dark gray fine sand. Perennial Herb. Wild. Seed.
476118. VSGr 6396. Brazil. Collected August 29, 1981. Cassalvasco airstrip, 100km S of Vila Bela, Mato Grosso. 210m. Lat. 15 deg. 30' S, Long. 60 deg. 06' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil gray fine sand. Perennial Herb. Wild. Seed.
476119. VSGr 6404. Brazil. Collected August 30, 1981. Road to Pontes e Lacerdo, approx. 56km NW of Pto Esperidiao, Mato Grosso. 160m. Lat. 15 deg. 37' S, Long. 58 deg. 48' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Entrance to Estancia 2 Irmaos. Soil coarse red sand with much gravel, in low area, but well drained. Rhizobial vial 313. Perennial Herb. Wild. Seed.

476103 TO 476131-continued

476120. VSGr 6405. Brazil. Collected August 30, 1981. Approx. 56km NW of Pto Esperidiao, hill west of VSGr 6404, Mato Grosso. 170m. Lat. 15 deg. 37' S, Long. 58 deg. 48' W. Perennial Herb. Wild. Seed.
476121. VSGr 6407. Brazil. Collected August 30, 1981. Road to Pontes e Lacerdo, approx. 33km NW of Porto Esperidiao, Mato Grosso. 170m. Lat. 15 deg. 45' S, Long. 58 deg. 41' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Entrance to Fazenda Paraíso do Norte. Soil gray fine sand, very dry and hard. Perennial Herb. Wild. Seed.
476122. VSGr 6408. Brazil. Collected August 30, 1981. Road to Caceres, 9km ENE of Porto Esperidiao, Mato Grosso. 150m. Lat. 15 deg. 48' S, Long. 58 deg. 23' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Low area called Ribeirão des Pitas. Soil red sandy loam with much gravel. Rhizobial vial 314. Perennial Herb. Wild. Seed.
476123. VSGr 6409. Brazil. Collected August 31, 1981. Airport, Caceres, Mato Grosso. 140m. Lat. 16 deg. 05' S, Long. 57 deg. 39' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Flowers yellow. Perennial Herb. Wild. Seed.
476124. VSGr 6410. Brazil. Collected August 31, 1981. Airport, Caceres, Mato Grosso. 140m. Lat. 16 deg. 05' S, Long. 57 deg. 39' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Flowers orange. Perennial Herb. Wild. Seed.
476125. VSGr 6411. Brazil. Collected August 31, 1981. Caceres Airport runway, Mato Grosso. 140m. Lat. 16 deg. 05' S, Long. 57 deg. 39' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil reddish sandy clay with much gravel, very hard and dry. Perennial Herb. Wild. Seed.
476126. VSGr 6413. Brazil. Collected August 31, 1981. Road to Barra dos Bugres, approx. 45km N of Caceres, Mato Grosso. 200m. Lat. 15 deg. 47' S, Long. 57 deg. 25' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil gray fine sand. Rhizobial vial 315. Perennial Herb. Wild. Seed.
476127. VSGr 6415. Brazil. Collected August 31, 1981. Road to Barra dos Bugres, approx. 71km N of Caceres, Mato Grosso. 215m. Lat. 15 deg. 39' S, Long. 57 deg. 15' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil gray fine sand, very dry and hard. Perennial Herb. Wild. Plants.
476128. VSGr 6416. Brazil. Collected August 31, 1981. Road to Barra dos Bugres, approx. 71km N of Caceres, Mato Grosso. 215m. Lat. 15 deg. 39' S, Long. 57 deg. 15' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil gray fine sand, very dry and hard. Annual. Wild. Plants.

476103 TO 476131-continued

476129. VSGr 6441. Brazil. Collected September 02, 1981. High area of Cerrado, approx. 45km S of Rosario do Oeste, Mato Grosso. 250m. Lat. 15 deg. 13' S, Long. 56 deg. 28' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. North, 15km of Guia. Soil fine white sand. Perennial Herb. Wild. Plants.
476130. VSGr 6442. Brazil. Collected September 03, 1981. Approx. 32km SSE of Rondonopolis, Mato Grosso. 220m. Lat. 16 deg. 38' S, Long. 54 deg. 27' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Hwy to Brasilia (BR-364) between 174 and 175km markers, just NW of Rio Jurigue. Soil red sandy clay loam. Plants rhizomatous. Perennial Herb. Wild. Plants.
476131. VSGr 6443. Brazil. Collected September 03, 1981. Approx. 32km SSE of Rondonopolis, Mato Grosso. 220m. Lat. 16 deg. 38' S, Long. 54 deg. 27' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Hwy to Brasilia (BR-364) between 174 and 175km markers, just NW of Rio Jurigue. Soil red sandy clay loam. Plants rhizomatous. Perennial Herb. Wild. Plants.

476132 TO 476140. *Arachis* sp. (Fabaceae).

From Brazil. Collected by L. Coradin, A.R. Miranda, G.P. Silva & J. Valls; Centro Nacional de Recursos Geneticos, Empresa Brasileira de Pesquisa Agropecuaria; CEP 70.000 - Brasilia DF. Received through IBPGR, FAO, Rome, Italy, and C.E. Simpson, Texas A&M Univ., Stephenville, TX. Received December 1981.

476132. J. Valls 5895. Brazil. Brasilia. CENARGEN. Wild. Seed.
476133. J. Valls 5913. Brazil. Brasilia. CENARGEN. Wild. Seed.
476134. J. Valls 5925. Brazil. Brasilia. CENARGEN. Wild. Seed.
476135. J. Valls 6001. Brazil. Brasilia. CENARGEN. Wild. Seed.
476136. J. Valls 6110. Brazil. Brasilia. CENARGEN. Wild. Seed.
476137. J. Valls 6180. Brazil. Brasilia. CENARGEN. Wild. Seed.
476138. J. Valls 6188. Brazil. Brasilia. CENARGEN. Wild. Seed.
476139. J. Valls 6215. Brazil. Brasilia. CENARGEN. Wild. Seed.
476140. J. Valls 6240. Brazil. Brasilia. CENARGEN. Wild. Seed.

476141 TO 476142. *Arachis tuberosa* Benth. (Fabaceae).

From Brazil. Collected by Various Plant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

476141. VSGr 6305. Brazil. Collected August 19, 1981. Hwy BR-364 from Basilia to Cuiaba, 3.2km E of Jatai River, Jatai, Goias. 700m. Lat. 17 deg. 54' S, Long. 51 deg. 43' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil red stickey clay, very dry and hard. In area between highway and fence, recently burned. Perennial Herb. Wild. Plants.

476142. VSGr 6310. Brazil. Collected August 19, 1981. Hwy BR-364 from Brasilia to Cuiaba, 10km WSW of Jatai, Goias. 650m. Lat. 17 deg. 56' S, Long. 51 deg. 47' W. Collected by J.F.M. Valls, C.E. Simpson, A. Gripp. Soil red stickey clay, very dry and hard. In area between highway and fence, recently burned. Perennial Herb. Wild. Plants.

476143 TO 476210. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Peru. Collected by Various Flant Explorers; International Board of Plant Genetic Resources (IBPGR), Food & Agriculture Organization; Rome, Italy.  
Received December 1981.

476143. SPZ 451. Peru. Collected May 12, 1981. Market, Casma, Lima. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Casma. Seeds small to medium, mostly red, one tan, one tan with purple flecks. Cultivated. Seed.

476144. SPZ 452. Peru. Collected May 12, 1981. Market, Casma, Lima. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Casma. Seeds small to medium, tan, red, purple and tan with purple flecks. Cultivated. Seed.

476145. SPZ 453. Peru. Collected May 12, 1981. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Casma. Seeds small to medium, mostly red, one tan, and some tan with purple flecks. Cultivated. Seed.

476146. SPZ 454. Peru. Collected May 12, 1981. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Cuzco. Seeds small to medium, mostly red, few tan, and tan with purple flecks. Cultivated. Seed.

476143 TO 476210-continued

476147. SPZ 455. Peru. Collected May 12, 1981. Central market, Lima. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, mostly red, few tan, and tan with purple flecks. Cultivated. Seed.
476148. SPZ 456. Peru. Collected May 14, 1981. Aucayacu. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Lima. Seeds small to medium, mostly red, few tan, and tan with purple flecks. Cultivated. Seed.
476149. SPZ 457. Peru. Collected May 14, 1981. Store, Aucayacu. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Pucati. Seeds small to medium, mixture of tan, purple, and tan with purple flecks. Cultivated. Seed.
476150. SPZ 458. Peru. Collected May 14, 1981. Store, Aucayacu. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Lima. Seeds large, purple and white - Overo. Cultivated. Seed.
476151. SPZ 459. Peru. Collected May 14, 1981. Home, Aucayacu. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, mixture of dark and light purple, brown, tan, and tan with purple flecks. Cultivated. Seed.
476152. SPZ 460. Peru. Collected May 16, 1981. Market, Tingo Maria. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Lima. Seeds small to medium, mostly red, two tan. Cultivated. Seed.
476153. SPZ 461. Peru. Collected May 16, 1981. "Old" Market, Huanuco. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds large, tan or flesh color. Cultivated. Seed.
476154. SPZ 462. Peru. Collected May 16, 1981. "New" Market, Huanuco. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Columbia. Seeds large, purple and white - Overo. Cultivated. Seed.
476155. SPZ 463. Peru. Collected May 16, 1981. "New" Market, Huanuco. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds large, tan or flesh color. Cultivated. Seed.
476156. SPZ 464. Peru. Collected May 16, 1981. "New" Market, Huanuco. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds large, tan or flesh color. Cultivated. Seed.
476157. SPZ 465. Peru. Collected May 16, 1981. Market, Tingo

476143 TO 476210-continued

- Maria. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds medium, tan with purple flecks. Cultivated. Seed.
476158. SPZ 466. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, mostly red, some tan or flesh color. Cultivated. Seed.
476159. SPZ 467. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, mostly tan or flesh color, some purple and tan with purple flecks. Cultivated. Seed.
476160. SPZ 468. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, mostly pink, some tan with purple flecks. Cultivated. Seed.
476161. SPZ 469. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, mostly red, few tan or flesh color. Cultivated. Seed.
476162. SPZ 470. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, mostly tan or flesh color, few purple. Cultivated. Seed.
476163. SPZ 471. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, tan or flesh, tan with purple flecks, and purple. Cultivated. Seed.
476164. SPZ 472. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, mostly tan or flesh color, few tan with purple flecks, two white. Cultivated. Seed.
476165. SPZ 473. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, mostly tan or flesh color, few tan with purple flecks. Cultivated. Seed.
476166. SPZ 474. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, tan or flesh color, two tan with purple flecks. Cultivated. Seed.
476167. SPZ 475. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H.

476143 TO 476210-continued

- Zurita. Local type. Seeds small to medium, tan or flesh color, and tan with purple flecks. Cultivated. Seed.
476168. SPZ 476. Peru. Collected May 18, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, tan or flesh color, tan with purple flecks, light and dark purple. Cultivated. Seed.
476169. SPZ 477. Peru. Collected May 18, 1981. Lamas. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, tan or flesh colored, purple and tan with purple flecks. Cultivated. Seed.
476170. SPZ 478. Peru. Collected May 20, 1981. Experiment Station, Yurimaguas. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, tan or flesh color - Blanco Tarapoto. Cultivated. Seed.
476171. SPZ 479. Peru. Collected May 20, 1981. Store owner, Yurimaguas. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, tan or flesh color, few light purple. Cultivated. Seed.
476172. SPZ 480. Peru. Collected May 21, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, mostly light purple, few tan or flesh color. Cultivated. Seed.
476173. SPZ 481. Peru. Collected May 21, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, tan with purple flecks, tan, few light purple. Cultivated. Seed.
476174. SPZ 482. Peru. Collected May 22, 1981. Street Market, Tarapoto. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, tan or flesh color, light purple, dark purple, few purple and few tan with purple flecks. Cultivated. Seed.
476175. SPZ 483. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, tan or flesh color, tan with purple flecks, purple, and light purple. Cultivated. Seed.
476176. SPZ 484. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, tan or flesh color, purple, light purple, and tan with purple flecks. Cultivated. Seed.
476177. SPZ 485. Peru. Collected May 23, 1981. Belem Market,

476143 TO 476210-continued

- Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds small to medium, tan or flesh color, purple, light purple, few dark purple, few tan with purple flecks, few purple and tan striped. Cultivated. Seed.
476178. SPZ 486. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds medium, tan or flesh color, purple, dark purple, tan with purple flecks, tan with light purple stripes, tan with dark purple stripes. Cultivated. Seed.
476179. SPZ 487. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Local type. Seeds medium, mostly purple, few tan or flesh color, few tan with purple flecks. Cultivated. Seed.
476180. SPZ 488. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Rio Napo. Seeds small to medium, tan or flesh color, purple, tan with purple flecks, light and dark purple, few red. Cultivated. Seed.
476181. SPZ 489. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Rio Napo. Seeds small, red. Cultivated. Seed.
476182. SPZ 490. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Rio Napo. Seeds small to medium, tan or flesh color. Cultivated. Seed.
476183. SPZ 491. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Rio Maranon. Seeds small to medium, tan or flesh color, red, tan with purple flecks, purple, light and dark purple, tan and purple striped. Cultivated. Seed.
476184. SPZ 492. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Rio Ucayali. Seeds small to medium, brown, light brown, tan, tan with purple flecks, red, and tan with purple stripes. Cultivated. Seed.
476185. SPZ 493. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Rio Ucayali. Seeds small to medium, tan or flesh color, purple, dark purple, tan with purple flecks. Cultivated. Seed.



476143 TO 476210-continued

476186. SPZ 494. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Rio Ucayali. Seeds small to medium, tan or flesh color, purple, light purple, tan with purple flecks, striped with light and dark purple stripes. Cultivated. Seed.
476187. SPZ 495. Peru. Collected May 23, 1981. Belem Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Originally from Rio Ucayali. Seeds small to medium, purple, few tan or flesh color. Cultivated. Seed.
476188. SPZ 496. Peru. Collected May 24, 1981. Mordelo Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds medium, tan or flesh color, brown, purple, red, light purple, tan with purple flecks. Cultivated. Seed.
476189. SPZ 497. Peru. Collected May 24, 1981. Mordelo Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, purple, tan or flesh color, tan with purple flecks, tan with purple stripes. Cultivated. Seed.
476190. SPZ 498. Peru. Collected May 24, 1981. Mordelo Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, purple, one tan or flesh color. Cultivated. Seed.
476191. SPZ 499. Peru. Collected May 24, 1981. Mordelo Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, tan or flesh color, purple, brown, tan with purple flecks. Cultivated. Seed.
476192. SPZ 500. Peru. Collected May 24, 1981. Mordelo Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, purple, few tan or flesh color, few tan with purple flecks. Cultivated. Seed.
476193. SPZ 501. Peru. Collected May 24, 1981. Central Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, purple, light purple, tan or flesh color, tan with purple flecks, tan with purple strips. Cultivated. Seed.
476194. SPZ 502. Peru. Collected May 24, 1981. Central Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, purple, light purple and tan or flesh color. Cultivated. Seed.
476195. SPZ 503. Peru. Collected May 24, 1981. Central Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H.

476143 TO 476210-continued

- Zurita. Seeds small to medium, light purple, brown, tan or flesh color, few purple, few tan and purple striped. Cultivated. Seed.
476196. SPZ 504. Peru. Collected May 24, 1981. Central Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, purple, tan or flesh color, and tan with purple flecks. Cultivated. Seed.
476197. SPZ 505. Peru. Collected May 24, 1981. Central Market, Iquitos. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds medium, tan with purple stripes, some tan with purple flecks, few tan or flesh color. Cultivated. Seed.
476198. SPZ 506. Peru. Collected May 25, 1981. Caserio Canoveral school, 10km upriver from Iquitos, Rio Amazon Agua Arriba. Collected by C.E. Simpson, J. Pietrarelli, H. Zurita. Seeds small to medium, purple. Copallin. Cultivated. Seed.
476199. SP 507. Peru. Collected May 28, 1981. Market, Ayacucho. Collected by C.E. Simpson, J. Pietrarelli. Seeds small, red, tan or flesh color, one purple. Cultivated. Seed.
476200. SP 508. Peru. Collected May 28, 1981. Market, Ayacucho. Collected by C.E. Simpson, J. Pietrarelli. Seeds small, red, two purple. Cultivated. Seed.
476201. SP 509. Peru. Collected May 28, 1981. Market, Ayacucho. Collected by C.E. Simpson, J. Pietrarelli. Seeds small, mostly red, few purple, few tan or flesh color. Cultivated. Seed.
476202. SP 510. Peru. Collected May 28, 1981. Market, Ayacucho. Collected by C.E. Simpson, J. Pietrarelli. Seeds small, mostly red, few light brown, few tan or flesh color. Cultivated. Seed.
476203. SP 511. Peru. Collected May 29, 1981. Store, Santa Rosa, 10km upriver (Apurimac) from San Francisco. Collected by C.E. Simpson, J. Pietrarelli. Seeds small, mostly red, few purple. Cultivated. Seed.
476204. SP 512. Peru. Collected May 29, 1981. Store, Santa Rosa, 10km upriver (Apurimac) from San Francisco. Collected by C.E. Simpson, J. Pietrarelli. Seeds small, red. Cultivated. Seed.
476205. SP 513. Peru. Collected May 30, 1981. Ccatanrumi, 15km downriver (Apurimac) from San Francisco. Collected by C.E. Simpson, J. Pietrarelli. Seeds small, red. Cultivated. Seed.

476143 TO 476210-continued

476206. SP 514. Peru. Collected May 31, 1981. Market, San Francisco on Rio Apurimac. Collected by C.E. Simpson, J. Pietrarello. Seeds small, red. Cultivated. Seed.
476207. SP 515. Peru. Collected May 31, 1981. Market, San Francisco on Rio Apurimac. Collected by C.E. Simpson, J. Pietrarello. Seeds small, red, tan or flesh color, few red and black. Cultivated. Seed.
476208. SP 516. Peru. Collected May 31, 1981. Market, San Francisco on Rio Apurimac. Collected by C.E. Simpson, J. Pietrarello. Seeds small, red. Cultivated. Seed.
476209. SP 517. Peru. Collected May 31, 1981. Market, San Francisco on Rio Apurimac. Collected by C.E. Simpson, J. Pietrarello. Seeds small, mostly red, few purple, one tan or flesh color. Cultivated. Seed.
476210. SP 518. Peru. Collected May 31, 1981. Market, San Francisco on Rio Apurimac. Collected by C.E. Simpson, J. Pietrarello. Seeds small, mostly red, few pink, one tan or flesh color. Cultivated. Seed.

476211. *Triticum durum* Desf. (Poaceae) Durum wheat.

From United States. Donated by North Dakota Experiment Station & U.S. Department of Agriculture; Fargo, North Dakota.  
Received December 1982.

D771. 'Lloyd'. United States. R. G. Cantrell. Cando/Edmore. Plants semi-dwarf to about 71cm tall. Maturity similar to Cando. Glumes and awns white. Seed weight slightly higher than Cando. Shattering resistance good. Resistant to stem rust. Root rot resistance superior to Cando. Milling, cooking, processing qualities satisfactory. Gluten quality strong. Cultivar. Seed.

476212 TO 476214. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by D. W. Sunderman; U.S. Department of Agriculture & Idaho Agricultural Experiment Station, University of Idaho; Aberdeen and Moscow, Idaho.  
Received December 1982.

476212. SM 4. United States. Soft red type. Maturity moderately late. Plants intermediate to tall. Straw weak. Spikes intermediate-sized, awned. Glumes brown. Milling yield low. Flour satisfactory for cookies. Highly resistant to dwarf and common blunt, tolerant to snow mold. Susceptible to leaf and stripe rust. Winter Annual.

476212 TO 476214-continued  
Cultivated. Seed.

476213. SM 11. United States. Soft white type. Maturity intermediate. Plants moderately tall. Straw weak. Spikes lax, awned. Glumes white. Grain protein content and milling yield slightly higher and cookie spread slightly smaller than PI476212 and PI473214. Resistant to dwarf and common bunt, tolerant to snow mold. Susceptible to leaf and stripe rust. Cultivated. Seed.

476214. SM 22. United States. Soft white type. Maturity early. Plants moderately short. Straw weak. Spikes awned. Glumes white. Milling and flour characteristics similar to pastry flour. Resistant to dwarf and common bunt, tolerant to snow mold. Susceptible to leaf and stripe rust. Cultivated. Seed.

476215. *Avena sativa* L. (Poaceae) Common oat.

From United States. Donated by Agricultural Experiment Station, North Dakota State University & U.S. Department of Agriculture; Fargo, North Dakota.  
Received January 1983.

ND77-61-311. 'Pierce'. United States. M.S. McMullen. Hudson/Dal. Maturity late. Seeds relatively large, plump, white. Test weight and groat percentage superior to Hudson & Fidler. Protein percentage superior to Moore. Crown rust resistance intermediate. Susceptible to stem rust race NA27. Cultivar. Seed.

476216. X *Triticosecale* (Poaceae) Triticale.

From United States. Donated by Agricultural Experiment Station, North Dakota State University & U.S. Department of Agriculture; Fargo, North Dakota.  
Received January 1983.

ND771932. 'Kramer'. Mexico. El Batan. CIMMYT. X2802-F-12N-1M-1N-1M-OY. K.D. Kofoed. Maya II/Armadillo. Plants equal in height to Welsh, awned, hexaploid. Maturity 3 days earlier than Welsh. Test weight slightly better than Welsh. Protein percentage 1.5% below Welsh. More resistant to leaf rust than Welsh, but rating shows susceptibility. Cultivar. Seed.

476217. *Phaseolus vulgaris* L. (Fabaceae) Garden bean.

From United States. Donated by North Dakota and Washington Agricultural Experiment Stations and U.S. Department of

476217-continued

Agriculture; Fargo, North Dakota and Pullman & Prosser,  
WA.

Received January 1983.

ND364. 'Holberg'. United States. Viva Pink/5R-568.  
Breeders: A. Schneiter, K. Grafton, and D. Burke. Pinto  
type. Vines more upright than Pinto UI-114. Seed weight  
lower, but more uniform in size and more plump than UI-  
114. Resistant to the prevalent type and New York 15  
strains of Bean Common Mosaic Virus. Immune to Curly Top  
Virus. Effective resistance to Fusarium root rot.  
Cultivar. Seed.

476218 TO 476219. *Medicago orbicularis* (L.) Bartal. (Fabaceae)  
Buttonclover medic.

From Israel. Collected by J. Katznelson; Division of Pasture &  
Fodder Crops, Agricultural Experiment Station; Newe  
Ya'ar, P.O. Haifa.

Received June 1981.

476218. NYM 18. Israel. Collected September 18, 1969. Below  
sheep barn, Bet Qeshet. Collected by J. Katznelson and E.  
Putiyevsky. Wild. Seed.

476219. NYM 18/VIII. Israel. Collected September 18, 1969. Bet  
Qeshet. Selection from NYM 18. Extremely low in  
coumesterol content. Wild. Seed.

476220 TO 476237. *Medicago polymorpha* L. (Fabaceae) California  
burclover.

From Israel. Collected by J. Katznelson; Division of Pasture &  
Fodder Crops, Agricultural Experiment Station; Newe  
Ya'ar, P.O. Haifa.

Received June 1981.

476220. NYM 1. Israel. Collected September 16, 1969. East, 1.5km  
of Adamit. Collected by J. Katznelson and E. Putiyevsky.  
Next to *Fistacia atlantica* tree. Wild. Seed.

476221. NYM 4. Israel. Collected September 18, 1969. Bet Qeshet,  
next to entrance from main road. Collected by J.  
Katznelson and E. Putiyevsky. Wild. Seed.

476222. NYM 5. Israel. Collected September 18, 1969. Grazing  
area, Bet Qeshet. Collected by J. Katznelson and E.  
Putiyevsky. Mixed with *Trifolium fragiferum*. Wild. Seed.

476223. NYM 6. Israel. Collected September 18, 1969. Grazing  
area, Bet Qeshet. Collected by J. Katznelson and E.

476220 TO 476237-continued

- Putiyevsky. Mixed with *Trifolium fragiferum*. Wild. Seed.
476224. NYM 7. Israel. Collected September 18, 1969. Below sheep barn, Bet Qeshet. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.
476225. NYM 9. Israel. Collected September 18, 1969. Davarat, 250m E. of village, next to wadi. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.
476226. NYM 10. Israel. Collected September 18, 1969. Burnt field, 350m before ascent to Mt. Tavor, next to 'En Dor tel. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.
476227. NYM 22. Israel. Collected September 16, 1969. Entrance to Me'ona, Nahariyya - Sasa road, next to vineyard. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.
476228. NYM 25. Israel. Collected September 16, 1969. From Nahariyya to Sasa, 300m after kilometer stone 7. Collected by J. Katznelson and E. Putiyevsky. Soil disturbed, segetal growth. Wild. Seed.
476229. NYM 26. Israel. Collected September 16, 1969. Rocky soil, on way to Mt. Meron, next to former Jermaq military stables. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.
476230. NYM 27. Israel. Collected September 16, 1969. On the way to Mt. Meron peak. 1000m. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.
476231. NYM 30. Israel. Collected September 16, 1969. Roadside, junction to Mt. Meron and Kabri - Sasa road. Collected by J. Katznelson and E. Putiyevsky. Growing with *Quercus infectoria*, *Q. calliprinos*, and *Rhamnus punctata*. Wild. Seed.
476232. NYM 43. Israel. Collected June 16, 1969. Next to gate, Sasa Police Station. 1000m. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.
476233. NYM 47. Israel. Collected September 16, 1969. Limestone area, 100m N of Kafr Yasif junction on 'Akko - Zefat road. Collected by J. Katznelson and E. Putiyevsky. Mixed with dense *Poterium spinosum*. Wild. Seed.
476234. NYM 50. Israel. Collected September 16, 1969. Next to kilometer stone 11, from Nahariyya to Sasa. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.
476235. NYM 51. Israel. Collected September 16, 1969. Terra rosa

476220 TO 476237--continued

northern slope, 1km E of Adamit. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.

476236. NYM 56. Israel. Collected September 16, 1969. Wadi, gravelly soil, next to junction to Adamit from Bezet - Sasa road. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.

476237. NYM 87. Spain. Collected June 1969. About 90km E of Motril. 1000m. Collected by G. Ladisinski. Wild. Seed.

476238. *Medicago rugosa* Desr. (Fabaceae).

From Israel. Collected by J. Katznelson; Division of Pasture & Fodder Crops, Agricultural Experiment Station; Newe Ya'ar, P.O. Haifa.  
Received June 1981.

NYM 28. Israel. Collected September 16, 1969. Towards peak of Mt. Meron, next to parking sign. 1000m. Collected by J. Katznelson and E. Putiyevsky. Wild. Seed.

476239 TO 476241. *Medicago* sp. (Fabaceae).

From Israel. Collected by J. Katznelson; Division of Pasture & Fodder Crops, Agricultural Experiment Station; Newe Ya'ar, P.O. Haifa.  
Received June 1981.

476239. NYM 92. Spain. Collected June 1969. Roadside, 50km SW of Granada to Malaga. Collected by Ladisinski. Possibly *M. polymorpha*. Wild. Seed.

476240. NYM 93. Israel. Hazera Seed Company. Cultivated. Seed.

476241. NYM 94. Israel. Hazera Seed Company. Cultivated. Seed.

476242 TO 476273. *Medicago truncatula* Gaertn. (Fabaceae) Barrelclover.

From Israel. Collected by J. Katznelson; Division of Pasture & Fodder Crops, Agricultural Experiment Station; Newe Ya'ar, P.O. Haifa.  
Received June 1981.

476242. NYM 1450Q. Wild. Seed.

476243. NYM 1489Q. Wild. Seed.

476244. NYM 1516Q. Wild. Seed.

476242 TO 476273-continued

- 476245. NYM 1525Q. Wild. Seed.
- 476246. NYM 2001Q. Wild. Seed.
- 476247. NYM 2080Q. Wild. Seed.
- 476248. NYM 2086Q. Wild. Seed.
- 476249. NYM 2100Q. Wild. Seed.
- 476250. NYM 2169Q. Wild. Seed.
- 476251. NYM 2212Q. Wild. Seed.
- 476252. NYM 2218Q. Wild. Seed.
- 476253. NYM 2514Q. Low in coumesterol content. Wild. Seed.
- 476254. NYM 2795Q. Wild. Seed.
- 476255. NYM 2806Q. Wild. Seed.
- 476256. NYM 2826Q. Wild. Seed.
- 476257. NYM 2830Q. Wild. Seed.
- 476258. NYM 3576Q. Wild. Seed.
- 476259. NYM 3647Q. Wild. Seed.
- 476260. NYM 3658Q. Wild. Seed.
- 476261. NYM 3660Q. Wild. Seed.
- 476262. NYM 3680Q. Wild. Seed.
- 476263. NYM 4071Q. Wild. Seed.
- 476264. NYM 4080Q. Wild. Seed.
- 476265. NYM 4093Q. Wild. Seed.
- 476266. NYM 4110Q. Wild. Seed.
- 476267. NYM 4295Q. Wild. Seed.
- 476268. NYM 4303Q. Wild. Seed.
- 476269. Spineless. Wild. Seed.
- 476270. Golan Heights. Cultivated. Seed.



476242 TO 476273-continued

476271. Commercial. Wild. Seed.

476272. n/12.

476273. Unnumbered. Wild. Seed.

476274. *Elymus cinereus* Scribn. & Merr. (Poaceae) Basin wildrye.

From United States. Donated by Los Lunas Plant Materials Center, SCS, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

T 8319. United States. Collected 1957. Paonia, Colorado. 2300m. Tested under New Mexico PMC Number C-43. Perennial Herb. Wild. Seed.

476275. *Hilaria mutica* (Buckl.) Benth. (Poaceae).

From United States. Donated by Los Lunas Plant Materials Center, SCS, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

T 16919. United States. Collected 1959. Las Cruces, New Mexico. Tested under New Mexico PMC Number NM-327. Perennial Herb. Wild. Seed.

476276 TO 476277. *Oryzopsis hymenoides* (Roem. & Schult.) Ricker (Poaceae).

From United States. Donated by Los Lunas Plant Materials Center, SCS, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

476276. T 4605. United States. Albuquerque, New Mexico. 1600m. Tested under New Mexico PMC Number NM-15. Perennial Herb. Wild. Seed.

476277. T 5427. United States. Tested under Pullman PMC Number P-15598. Perennial Herb. Wild. Seed.

476278. *Panicum obtusum* H.B.K. (Poaceae) Vine mesquitegrass.

From United States. Donated by Los Lunas Plant Materials Center, SCS, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD.

476278-continued

Received January 1983.

T 2929. United States. Collected 1949. Carrizozo, New Mexico. 1600m. Tested under Arizona PMC Number A-13165. Perennial Herb. Wild. Seed.

476279. *Sorghastrum nutans* (L.) Nash (Poaceae) Indiangrass.

From United States. Donated by Los Lunas Plant Materials Center, SCS, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

T 17052. United States. Tested under Los Lunas PMC Number NM-160. Perennial Herb. Seed.

476280. *Sporobolus wrightii* Munro ex Scribn. (Poaceae) Sacaton.

From United States. Donated by Los Lunas Plant Materials Center, SCS, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

T 13186. United States. Carrizozo, New Mexico. Tested under Tucson PMC Number A-3659. Perennial Herb. Wild. Seed.

476281. *Cenchrus ciliaris* L. (Poaceae) Buffelgrass.

From United States. Donated by Texas Agricultural Experiment Station; College Station, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD. Code numbers refer to SCS T-number. Received January 1983.

T 16763. 'Higgins'. United States. Selections from selfed progeny of B-1S. Resembles Texas T-4464 (common) variety in foliage and inflorescence color but may be identified by presence of rhizomes and more compact inflorescence. Seed production superior to blue buffelgrass. Perennial Herb. Cultivar. Seed.

476282. *Dactylis glomerata* L. (Poaceae) Orchardgrass.

From United States. Donated by Virginia Agricultural Experiment Station; Blacksburg, Virginia. Received through National Plant Materials Center, SCS, Beltsville, MD. Code numbers refer to SCS T-number. Received January 1983.

476282-continued

T 14335. 'Virginia 70'. United States. Typical northern Virginia ecotype. Perennial Herb. Cultivar. Seed.

476283. *Dactylis glomerata* L. (Poaceae) Orchardgrass.

From United States. Donated by Farmers Forage Research Cooperative; West Lafayette, Indiana. Received through National Plant Materials Center, SCS, Beltsville, MD. Code numbers refer to SCS T-number. Received January 1983.

T 16781. 'Hallmark'. United States. Vigorous, high yielding, good recovery after mowing, good seedling vigor. Perennial Herb. Cultivar. Seed.

476284. *Dactylis glomerata* L. (Poaceae) Orchardgrass.

From United States. Donated by Massachusetts Agricultural Experiment Station; Amherst, Massachusetts. Received through National Plant Materials Center, SCS, Beltsville, MD. Code numbers refer to SCS T-number. Received January 1983.

T 17384. 'Masshardy'. United States. Maturity late. Plants upright, leafy and winter hardy. Perennial Herb. Cultivar. Seed.

476285. *Festuca arundinacea* Schreb. (Poaceae) Tall fescue.

From United States. Donated by Big Flats Plant Materials Center, SCS, USDA; Big Flats, New York. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

T 1979. United States. Selection from an accession received from Amherst, Massachusetts. Perennial Herb. Cultivated. Seed.

476286. *Festuca idahoensis* Elmer (Poaceae) Idaho fescue.

From United States. Donated by Pullman Plant Materials Center, SCS, USDA, Washington State University; Pullman, Washington. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

T 16884. United States. Collected 1938. Winchester, Idaho. Tested under Pullman PMC Number P-6435. Seed

**476286-continued**

production high. Perennial Herb. Cultivated. Seed.

**476287 TO 476288. Phalaris stenoptera Hack. (Poaceae) Harding grass.**

From United States. Donated by Pullman Plant Materials Center, SCS, USDA, Washington State University; Pullman, Washington. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

476287. T 16998. United States. Tested under Pullman PMC Number P-11740. Perennial Herb. Cultivated. Seed.

476288. T 17010. United States. Tested under Pullman PMC Number P-6492 AND Arizona PMC Number A-136. Perennial Herb. Cultivated. Seed.

**476289. Panicum antidotale Retz. (Poaceae) Blue panicgrass.**

From United States. Donated by Tucson Plant Materials Center, SCS, USDA; Tucson, Arizona. Received through National Plant Materials Center, SCS, Beltsville, MD. Received January 1983.

T 3357. United States. Tested under Tucson PMC Number A-14013 and Knox City PMC Number T-15327. Cold hardy. Perennial Herb. Cultivated. Seed.

**476290 TO 476296. Panicum virgatum L. (Poaceae) Switchgrass.**

From United States. Donated by National Plant Materials Center, SCS, USDA; Beltsville, Maryland. Received January 1983.

476290. T 2086. United States. Wilmington, North Carolina. Fast growing. Perennial Herb. Wild. Seed.

476291. T 2099. United States. Blend of T-2086 and T-2104. Perennial Herb. Cultivated. Seed.

476292. T 2100. United States. Collected October 31, 1955. Franklin County, Arkansas. Perennial Herb. Wild. Seed.

476293. T 2101. United States. Heislerville, New Jersey. Perennial Herb. Wild. Seed.

476294. T 4613. United States. Eads, Colorado. Tested under New Mexico Number C-10. Perennial Herb. Wild. Seed.

476295. T 4614. United States. Colorado Springs, Colorado.

476290 TO 476296-continued

Tested under New Mexico Number C-13. Perennial Herb. Wild. Seed.

476296. T 16971. United States. Tested under Arizona Number A-6606. Perennial Herb. Wild. Seed.

476297. *Panicum virgatum* L. (Poaceae) Switchgrass.

From United States. Donated by Oklahoma Agricultural Experiment Station; Stillwater, Oklahoma. Received through National Plant Materials Center, SCS, Beltsville, MD. Code numbers refer to SCS T-number.  
Received January 1983.

T 2195. 'Caddo'. United States. Plants tall, robust, upland. Seed production high, forage yield under irrigation outstanding. Perennial Herb. Cultivar. Seed.

476298. *Schizachyrium scoparium* (Michx.) Nash (Poaceae) Little bluestem.

From United States. Donated by Bridger Plant Materials Center, SCS, USDA; Bridger, Montana. Received through National Plant Materials Center, SCS, Beltsville, MD.  
Received January 1983.

T 5541. United States. Ft. Laramie, Wyoming. 1500m. Tested under Bridger PMC Number WY-342 and Pullman PMC Number P-15584. Perennial Herb. Wild. Seed.

476299. *Psathyrostachys juncea* (Fisch.) Nevski (Poaceae) Russian wildrye.

From United States. Donated by U.S. Northern Great Plains Research Center, ARS, USDA; Mandan, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Code numbers refer to SCS T-number.  
Received January 1983.

T 4390. 'Vinall'. United States. Three parental clones derived from PI75737 and one each from PI108493 and PI111549. Seed production high. Perennial Herb. Cultivar. Seed.

476300. *Stipa viridula* Trin. (Poaceae) Green needlegrass.

From United States. Donated by U.S. Northern Great Plains Research Center, ARS, USDA; Mandan, North Dakota. Received through National Plant Materials Center, SCS,

476300-continued

Beltsville, MD. Code numbers refer to SCS T-number.  
Received January 1983.

T 3992. 'Lodorn'. United States. Selected for low dormancy in newly harvested seed. Perennial Herb. Cultivar. Seed.

476301 TO 476304. *Chrysanthemum cinerariifolium* (Trevir.) Vis.  
(Asteraceae) Pyrethrum.

From Kenya. Donated by B. H. Waite; Agricultural Research Department, Kenya Agricultural Research Institute; Nairobi.  
Received December 1982.

476301. MA-65-99. Kenya. Cultivated. Seed.

476302. 4331. Kenya. Cultivated. Seed.

476303. 4729. Kenya. Cultivated. Seed.

476304. 4743. Kenya. Cultivated. Seed.

476305. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by Department of Agronomy, Kansas State University; Manhattan, Kansas.  
Received December 1982.

'Clark's Cream'. United States. E.G. Clark. Hard white type. Plants tall, awnless. Maturity medium-late. Seeds white. Resistance to preharvest sprouting is excellent. Winter Annual. Cultivar. Seed.

476306 TO 476307. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Brazil. Donated by Secao de Botanica Economica, Instituto Agronomico; Campinas SP.  
Received November 1982.

476306. SO 909. Brazil. Derived from PI259747. Resistant to scab (*Sphaceloma arachidis*), late leafspot (*Cercosporidium personatum*) and to *Ascochyta arachidis*. Cultivated. Breeding Material. Seed.

476307. SO 911. Brazil. Derived from PI350680. Resistant to scab (*Sphaceloma arachidis*) and late leafspot (*Cercosporidium personatum*). Cultivated. Breeding Material. Seed.

476308 TO 476314. *Hordeum vulgare* L. (Poaceae) Barley.

From France. Donated by Laboratoire de L'Orge, Station  
D'Amelioration Des Plantes, I.N.R.A. Domaine de Crouelle;  
F-63039 Clermont Ferrand Cedex. Received through D.J.  
Sammons, Dept. of Agronomy, Univ. of Maryland, College  
Park, MD.  
Received January 1983.

- 476308. Alpha. France. Two-row type. Winter Annual. Cultivar. Seed.
- 476309. Robur. France. Six-row type. Winter Annual. Cultivar. Seed.
- 476310. CF 165. France. Two-row type. Winter Annual. Breeding Material. Seed.
- 476311. France. 146/Robur. Six-row type. Winter Annual. Breeding Material. Seed.
- 476312. Beatrice. France. Two-row type. Annual. Cultivar. Seed.
- 476313. Cytris. France. Two-row type. Annual. Cultivar. Seed.
- 476314. CF 56. France. Two-row type. Annual. Breeding Material. Seed.

476315 TO 476318. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.  
Received December 1981.

- 476315. VIR 319. Taskentskij-32. Soviet Union. Uzbek SSR. Cultivated. Seed.
- 476316. VIR 322. Taskentskij-122. Soviet Union. Uzbek SSR. Cultivated. Seed.
- 476317. VIR 362. Perzuvan 46/2. Soviet Union. Azerbaidjan. Cultivated. Seed.
- 476318. VIR 389. Adyg. Soviet Union. Krasnodar territory, USSR. Cultivated. Seed.

476319 TO 476323. *Beta vulgaris* L. (Chenopodiaceae) Common beet.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.  
Received December 1981.

476319 TO 476323-continued

476319. VIR 1443. Ramonskij 25. Soviet Union. USSR. Cultivated. Seed.
476320. VIR 1444. Ramonskij 28. Soviet Union. USSR. Cultivated. Seed.
476321. VIR 1572. Mezotnenskij hibrid 9. Soviet Union. USSR. Cultivated. Seed.
476322. VIR 1776. Belocerkovskaja odnosemennaja 34. Soviet Union. USSR. Cultivated. Seed.
476323. VIR 2075. Ramonskaja odnosemennaja 32. Soviet Union. USSR. Cultivated. Seed.

476324 TO 476330. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
(Cucurbitaceae) Watermelon.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received December 1981.

476324. VIR 4307. Cel'nolistnyj 215. Soviet Union. USSR. Received as *C. lanatus* var. *vulgaris*. Cultivated. Seed.
476325. VIR 4337. Cernocemianuyj. Soviet Union. Ukrainian SSR. Received as *C. lanatus* var. *vulgaris*. Cultivated. Seed.
476326. VIR 4573. Yubilejnyj-72. Soviet Union. USSR. Received as *C. lanatus* var. *vulgaris*. Cultivated. Seed.
476327. VIR 4576. Snutnik. Soviet Union. Uzbek SSR. Received as *C. lanatus* var. *vulgaris*. Cultivated. Seed.
476328. VIR 4579. Podarok Holodova. Soviet Union. USSR. Received as *C. lanatus* var. *vulgaris*. Cultivated. Seed.
476329. VIR 4619. Astrahanskij. Soviet Union. USSR. Cultivated. Seed.
476330. VIR 4668. Volgar. Soviet Union. USSR. Cultivated. Seed.

476331 TO 476342. *Cucumis melo* L. (Cucurbitaceae) Muskmelon.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received December 1981.

476331. VIR 4068. Zaami 672. Soviet Union. Turkmenian SSR. Cultivated. Seed.



476331 TO 476342-continued

- 476332. VIR 4141. Desertnaja-5. Soviet Union. Krasnodar territory, USSR. Cultivated. Seed.
- 476333. VIR 5149. Kokca 588. Soviet Union. Uzbek SSR. Cultivated. Seed.
- 476334. VIR 5153. Hangaliak-kokca 14. Soviet Union. Uzbek SSR. Cultivated. Seed.
- 476335. VIR 5448. Ukrainka 320. Soviet Union. Ukrainian SSR. Cultivated. Seed.
- 476336. VIR 5671. Kubanka 93. Soviet Union. Krasnodar. Cultivated. Seed.
- 476337. VIR 5883. Sakor-polak 554. Soviet Union. Uzbek SSR. Cultivated. Seed.
- 476338. VIR 6178. Novogerkosskaja 265. Soviet Union. Ukrainian SSR. Cultivated. Seed.
- 476339. VIR 6679. Zolotistaja. Soviet Union. Krasnodar territory, USSR. Cultivated. Seed.
- 476340. VIR 6713. Razdani 43/1. Soviet Union. Armenian SSR. Cultivated. Seed.
- 476341. VIR 6777. Ic-kzyl Uzbenskaja 31. Soviet Union. Uzbek SSR. Cultivated. Seed.
- 476342. VIR 6809. Imljskaja. Soviet Union. Kazakh SSR. Cultivated. Seed.

476343 TO 476352. Glycine max (L.) Merr. (Fabaceae) Soybean.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received December 1981.

- 476343. VIR 6271. Iantarnaja. Soviet Union. USSR. Cultivated. Seed.
- 476344. VIR 6402. Uzbekskaia-2. Soviet Union. Uzbek SSR. Cultivated. Seed.
- 476345. VIR 6407. Aurika. Soviet Union. Moldavian SSR. Cultivated. Seed.
- 476346. VIR 6434. Mk-1 (Amurskaja 404). Soviet Union. Amur region, USSR. Cultivated. Seed.

476343 TO 476352-continued

476347. VIR 6439. Bel'skaja 25. Soviet Union. Moldavian SSR.  
Cultivated. Seed.
476348. VIR 6445. Hersonskaja-8. Soviet Union. Ukrainian SSR.  
Cultivated. Seed.
476349. VIR 6466. Bukurija. Soviet Union. Moldavian SSR.  
Cultivated. Seed.
476350. VIR 6497. Kievskaja 48. Soviet Union. Ukrainian SSR.  
Cultivated. Seed.
476351. VIR 6990. Beregovcanka. Soviet Union. Ukrainian SSR.  
Cultivated. Seed.
476352. VIR 7081. Colnon. Soviet Union. Kirghiz SSR. Cultivated.  
Seed.

476353 TO 476354. *Gossypium hirsutum* L. (Malvaceae) Upland cotton.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.  
Received December 1981.

476353. C-2602. Soviet Union. Cultivated. Seed.
476354. C-4727. Soviet Union. Cultivated. Seed.

476355 TO 476358. *Helianthus annuus* L. (Asteraceae) Sunflower.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.  
Received December 1981.

476355. VIR 2230. Armavirskij-14. Soviet Union. Krasnodar  
territory, USSR. Cultivated. Seed.
476356. VIR 2409. Zenit. Soviet Union. Rostov region. Cultivated.  
Seed.
476357. VIR 2538. Voronezskij-272. Soviet Union. Voronezh  
region, USSR. Cultivated. Seed.
476358. VIR 3011. Har'kovskij-50. Soviet Union. Ukrainian SSR.  
Cultivated. Seed.

476359 TO 476362. *Lactuca sativa* L. (Asteraceae) Lettuce.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant

476359 TO 476362-continued  
Industry; Leningrad.  
Received December 1981.

- 476359. VIR 1027. Moskovskij parnikovyj. Soviet Union. USSR. Cultivated. Seed.
- 476360. VIR 1179. Pervomajskij. Soviet Union. USSR. Cultivated. Seed.
- 476361. VIR 1204. Kuceriavec odesskij. Soviet Union. USSR. Cultivated. Seed.
- 476362. VIR 1438. Krupnokocannyj. Soviet Union. USSR. Cultivated. Seed.

476363 TO 476369. *Lens culinaris* Medik. (Fabaceae) Lentil.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received December 1981.

- 476363. VIR 237. Soviet Union. USSR. Cultivated. Seed.
- 476364. VIR 467. Soviet Union. Armenian SSR. Cultivated. Seed.
- 476365. VIR 748. Soviet Union. Ukrainian SSR. Cultivated. Seed.
- 476366. VIR 1864. Tallinskaja 6. Soviet Union. USSR. Cultivated. Seed.
- 476367. VIR 1871. Penzensko 14. Soviet Union. USSR. Cultivated. Seed.
- 476368. VIR 2047. Petrovskaja yubilejnaja. Soviet Union. USSR. Cultivated. Seed.
- 476369. VIR 2168. Petrovskaja. Soviet Union. USSR. Cultivated. Seed.

476370 TO 476376. *Lupinus albus* L. (Fabaceae) White lupine.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received April 1982.

- 476370. VIR 1642. Sudan. Local type. Cultivated. Seed.
- 476371. VIR 1645. Sharkeia k. Egypt. Cultivated. Seed.
- 476372. VIR 1724. Kievskij Skorospelyj. Soviet Union. Ukrainian SSR. Cultivated. Seed.

476370 TO 476376-continued

- 476373. VIR 2026. Gorizont. Soviet Union. Ukrainian SSR. Cultivated. Seed.
- 476374. VIR 2056. Kalina. Poland. Cultivated. Seed.
- 476375. VIR 2057. Kali. Poland. Cultivated. Seed.
- 476376. VIR 2202. Primorskij. Soviet Union. Ukrainian SSR. Cultivated. Seed.

476377 TO 476384. *Lupinus angustifolius* L. (Fabaceae) European blue lupine.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received April 1982.

- 476377. VIR 1457. Beniakovskij 484. Soviet Union. Latvian SSR. Cultivated. Seed.
- 476378. VIR 1486. Belorusskij 155. Soviet Union. Belorussian SSR. Cultivated. Seed.
- 476379. VIR 1507. Sinij. Soviet Union. Briansk region, USSR. Cultivated. Seed.
- 476380. VIR 1648. Szatak. Poland. Cultivated. Seed.
- 476381. VIR 1712. Severnyj 3. Soviet Union. Moscow region, USSR. Cultivated. Seed.
- 476382. VIR 1980. Nemcinovskij Kormovoj. Soviet Union. Cultivated. Seed.
- 476383. VIR 1981. Nemcinovskij 846. Soviet Union. Moscow region, USSR. Cultivated. Seed.
- 476384. VIR 2508. Kubesa. Germany, Federal Rep of. Cultivated. Seed.

476385 TO 476391. *Lycopersicon esculentum* Mill. (Solanaceae) Tomato.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received December 1981.

- 476385. VIR 3622. Solnecnyj. Soviet Union. USSR. Cultivated. Seed.
- 476386. VIR 3900. Fakel. Soviet Union. Moldavian SSR. Cultivated.

476385 TO 476391-continued  
Seed.

476387. VIR 3932. Severianin. Soviet Union. USSR. Cultivated.  
Seed.

476388. VIR 4284. Nistru. Soviet Union. Moldavian SSR.  
Cultivated. Seed.

476389. VIR 4285. Utro. Soviet Union. Moldavian SSR. Cultivated.  
Seed.

476390. VIR 4313. Terskij. Soviet Union. USSR. Cultivated. Seed.

476391. VIR 4319. Moskvic. Soviet Union. USSR. Cultivated. Seed.

476392. *Medicago sativa* L. (Fabaceae) Alfalfa.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.  
Received December 1981.

VIR 35639. Vahsskaja 300. Soviet Union. Tadzhik.  
Cultivated. Seed.

476393. *Medicago sativa* subsp. *x varia* (Martyn) Arc. (Fabaceae).

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.  
Received December 1981.

VIR 40813. Hersonskaja 9. Soviet Union. Ukrainian SSR.  
Cultivated. Seed.

476394 TO 476397. *Oryza sativa* L. (Poaceae) Rice.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.  
Received December 1981.

476394. VIR 5009. Gorizont. Soviet Union. USSR. Received as *O.*  
*sativa* var. *zeravschanica*. Cultivated. Seed.

476395. VIR 5254. Dal'nevostochyj. Soviet Union. USSR. Received  
as *O. sativa* var. *italica*. Cultivated. Seed.

476396. VIR 6671. Donskoj 402. Soviet Union. USSR. Received as *O.*  
*sativa* var. *vulgaris*. Cultivated. Seed.

476397. VIR 6788. Dunaj. Soviet Union. USSR. Received as *O.*  
*sativa* var. *italica*. Cultivated. Seed.

476398 TO 476402. *Panicum miliaceum* L. (Poaceae) Proso millet.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received December 1981.

476398. VIR 9548. Irtyskoe-201. Soviet Union. USSR. Cultivated. Seed.

476399. VIR 9624. Raoluoga. Soviet Union. USSR. Cultivated. Seed.

476400. VIR 9652. Mironovskoe 94. Soviet Union. USSR. Cultivated. Seed.

476401. VIR 9698. Omskoe-5. Soviet Union. USSR. Cultivated. Seed.

476402. VIR 9705. Kinel'skoe Skorospeloe. Soviet Union. USSR. Cultivated. Seed.

476403 TO 476407. *Phaseolus vulgaris* L. (Fabaceae) Garden bean.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received December 1981.

476403. VIR 12699. Kormovoj 16. Soviet Union. Ukrainian SSR. Seeds black. Cultivated. Seed.

476404. VIR 13340. Ragalla. Germany, Federal Rep of. Seeds white. Cultivated. Seed.

476405. VIR 13646. Oltyn. Soviet Union. Uzbek SSR. Cultivated. Seed.

476406. VIR 13649. Motal'skaja Gelaja. Soviet Union. Orlov region, USSR. Seeds white. Cultivated. Seed.

476407. VIR 13997. Bezencujskaja Geloja. Soviet Union. Kuibyshev region, USSR. Seeds white. Cultivated. Seed.

476408 TO 476414. *Pisum sativum* L. (Fabaceae) Garden pea.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.  
Received December 1981.

476408. VIR 5686. Wyola. United States. Cultivated. Seed.

476409. VIR 6389. Rota. Soviet Union. Latvian SSR. Cultivated. Seed.

476410. VIR 6738. Mironovskij 186. Soviet Union. Ukrainian SSR.

**476408 TO 476414-continued**

Cultivated. Seed.

**476411.** VIR 6744. Odesskij 53. Soviet Union. Ukrainian SSR.  
Cultivated. Seed.

**476412.** VIR 6750. Zernogradskij-8. Soviet Union. Ukrainian SSR.  
Cultivated. Seed.

**476413.** VIR 6918. Ul'ianovskij-72. Soviet Union. Ulianovsk  
region, USSR. Cultivated. Seed.

**476414.** VIR 7180. Uladovskij-10. Soviet Union. Ukrainian SSR.  
Cultivated. Seed.

**476415. Solanum melongena L. (Solanaceae) Eggplant.**

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.

• Received December 1981.

Terung Kopek Ungu. Soviet Union. Cultivated. Seed.

**476416 TO 476421. Vigna unguiculata (L.) Walp. subsp. unguiculata  
(Fabaceae) Southern pea.**

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.

Received December 1981.

**476416.** VIR 787. Gibriddnaja-7. Soviet Union. Uzbek SSR.  
Cultivated. Seed.

**476417.** VIR 1081. Hungary. Cultivated. Seed.

**476418.** VIR 1084. Syria. Cultivated. Seed.

**476419.** VIR 1088. Soviet Union. Uzbek SSR. Cultivated. Seed.

**476420.** VIR 1090. Soviet Union. Kazakh SSR. Cultivated. Seed.

**476421.** VIR 1092. Soviet Union. Kazakh SSR. Cultivated. Seed.

**476422 TO 476657. Arachis hypogaea L. (Fabaceae) Peanut.**

From Cameroon. Donated by Institute de la Recherche Agronomique,  
Centre de Maroua; Maroua. Code numbers refer to Nigerian  
designations for Kano and Mokwa Experiment Stations.

Received December 1982.

**476422.** K 3302-80. Nigeria. Zaria. Institute of Agricultural

476422 TO 476657-continued

- Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476423. K 3365-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476424. K 1437-80-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476425. K 3277-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476426. K 986-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476427. K 1853-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476428. K 3287-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476429. K 884-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476430. K 789. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476431. K 1710-80-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476432. K 703-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476433. K 879-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 80-100 days. Cultivated. Breeding Material. Seed.
476434. M 222-71. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476435. M 399-77. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding



476422 TO 476657-continued

Material. Seed.

476436. M 25-68. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476437. M 1001-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476438. M 1920-77-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476439. M 226-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476440. M 554-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476441. M 64-72. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476442. M 103-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476443. M 705-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476444. M 1204-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476445. M 69-76-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476446. M 6-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476447. M 24-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476448. M 513-77-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476449. M 1055-77-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476450. M 817-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476451. M 563-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476452. M 600-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476453. M 617-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476454. M 337-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476455. RMP 12. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476456. RMP 91. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-130 days. Cultivated. Breeding Material. Seed.
476457. K 48-92-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476458. M 264-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476459. M 817-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476460. M 385-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476461. K 43-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476462. M 145-775. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476463. M 237-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476464. 518-77. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476465. 13-30-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476466. K 412-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476467. K 378-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476468. K 852-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476469. 130169. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476470. K 556-857-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476471. K 275-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476472. M 416-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476473. M 171-785-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476474. 14-42-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476475. K 274-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476476. 31-67-74-M. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476477. M 309-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476478. K 32-78-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476479. M 368-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476480. M 558-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476481. K 2931-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476482. M 9571. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476483. M 46-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476484. M 811-775. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476485. K 3284-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476486. 24-79-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476487. M 585-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476488. 1404-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476489. K 3274-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476490. 516-80-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476491. K 32-36-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476492. M 1055-775. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476493. K 32-1680. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476494. M 787-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476495. M 636-77-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476496. K 22-3780. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476497. K 32-72-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476498. M 2-4974. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476499. M 385-72. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476500. KP 2176. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476501. M 1056-77-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476502. K 158-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476503. K 334-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476504. MI 182-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476505. M 435-77-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476506. 4628-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476507. K 2139-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476508. K 2028-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476509. M 576-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476510. M 82-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476511. M 2518-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476512. K 1337/40/80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476513. K 3282-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476514. C 52-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476515. M 682-76-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476516. M 1805-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476517. K 3263-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476518. K 486-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476519. M 806-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476520. K 247-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476521. K 2347 (8-80). Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476522. K 3215-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476523. M 978-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476524. 1380-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476525. M 750-76-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476526. 1325-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476527. M 2356-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476528. K 2044-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476529. 209-75. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476530. M 192-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476531. M 572-80-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476532. 2459-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476533. K 1400-37-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476534. M 184-796-1. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476535. M 595-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476536. K 2665-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476537. K 1280-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476538. M 576-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476539. K 1772-80-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.



476422 TO 476657-continued

476540. 3014-77. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476541. K 1320-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476542. 59-127. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476543. K 1441-77. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476544. M 9176. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476545. K 3271-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476546. K 416-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476547. 2938-71. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476548. K 676. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476549. M 838-77-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476550. K 3347-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476551. K 2121/83-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476552. K 1332-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476553. M 107-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476554. K 2009-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476555. K 1137/40/78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476556. M 562-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476557. K 2932-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476558. K 2600-24-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476559. F 452-21. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476560. K 63-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476561. M 483-77. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476562. M 580-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476563. M 19-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476564. K 2299-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476565. K 1294-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476566. M 309-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476567. K 1356/59-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476568. K 2306-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476569. MH 475-72. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476570. K 615-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476571. 170-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476572. K 1700-47-80-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476573. M 661-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476574. K 507-77. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476575. M 356-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476576. K 410-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476577. K 1375-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476578. M 115-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

- 476579. 984-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476580. M 430-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476581. M 729-75. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476582. K 1342-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476583. M 6-69-775. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476584. M 578-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476585. 1069-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476586. M 576-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476587. 679-70. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476588. M 592-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476589. 2431-31-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476590. 569-75-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
- 476591. K 157-75. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476592. K 258-77. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476593. 4018-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476594. M 516-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476595. M 546-77-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476596. M 289-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476597. M 40-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476598. K 101-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476599. K 402-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476600. 1325-75. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476601. 490-80-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476602. K 250-77. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476603. K 310-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476604. M 27-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476605. K 926/79/27/8. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476606. K 276-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476607. M 407-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476608. K 1196-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476609. K 3295-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476610. 2938-71. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476611. M 654-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476612. K 720-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476613. K 1368-79-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476614. K 1440-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476615. K 1374-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476616. M 533-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476617. K 427-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476618. K 1330-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476619. M 373-78-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476620. 4160-75. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476621. M 865-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476622. 3980-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476623. K 1166-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476624. K 1823-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476625. M 210-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476626. K 454-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476627. M 396-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476628. K 596-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476629. 1325-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476630. M 416-79-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476631. K 3271-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476632. M 91-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476633. K 2121/83/78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476634. K 1173-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476635. K 2009-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476636. M 107-74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476637. M 562-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476638. K 1137/40-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476639. K 2624-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476640. K 2932-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476641. M 580-79. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476642. M 19 74. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476643. K 1294-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.



476422 TO 476657-continued

476644. K 1332-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476645. K 2299. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476646. K 457-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476647. M 210-76. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476648. K 1823-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476649. K 1166-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476650. 3980-73. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476651. M 865-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476652. M 396-80-I. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476653. K 596-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476654. 1325-80. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476655. 3166-74-M. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.
476656. K 1368/69-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476422 TO 476657-continued

476657. K 720-78. Nigeria. Zaria. Institute of Agricultural Research. Maturity 100-140 days. Cultivated. Breeding Material. Seed.

476658 TO 476660. Helianthus annuus L. (Asteraceae) Sunflower.

From Romania. Donated by Research Institute for Cereal and Industrial Crops, I.C.C.P.T.; 8264 Fundulea, Calarasi. Received January 1983.

476658. Felix. Romania. Hybrid. Cultivated. Seed.

476659. Romsun HS-52. Romania. Hybrid. Cultivated. Seed.

476660. Sorem 82. Romania. Hybrid. Cultivated. Seed.

476661 TO 476672. Zea mays L. (Poaceae) Field corn.

From Hungary. Donated by Research Center for Agrobotany, N.I.A.V.T; H-2766 Tapioszele. Received January 1983.

476661. I-7-1681. Feher lofogu. Hungary. Kiskunhalasi. Seeds white, dent type, horse-toothed shape, 12-14 rows. Landrace. Seed.

476662. I-7-2641. Szentannai csemege. Hungary. Jaszberenyi. Seeds white, flint hard type, 8-10 rows. Used for food. Landrace. Seed.

476663. I-7-2642. Feher csemege. Hungary. Jaszberenyi. Seeds white, flint pearl type, 20 rows. Used for food. Landrace. Seed.

476664. I-7-2643. Feher csali filler. Hungary. Jaszberenyi. Seeds white, dent type, 16 rows. Landrace. Seed.

476665. I-7-2688. Feher filler. Hungary. Mihalyfi. Seeds white, dent type, 10 rows. Landrace. Seed.

476666. I-7-2693. Mindzentpusztai feher tipus. Hungary. Boconadi. Maturity 100 days. Seeds white-tipped, flint hard type, 10-12 rows. Landrace. Seed.

476667. I-7-2701. Feher simaszemu. Hungary. Gyorszamolyi. Seeds white, smooth, flint hard type, 8-10 rows. Landrace. Seed.

476668. I-7-2702. Feher filler. Hungary. Asvanyraroi. Seeds white, flint hard type, 8 rows. Landrace. Seed.

476661 TO 476672-continued

476669. I-7-2831. Feher simaszemu. Hungary. Debreceni. Seeds white, smooth, flint hard type, 10 rows. Landrace. Seed.
476670. I-7-2868. Hosszucsovu feher. Hungary. Domsodi. Cobs long. Seeds white, flint hard type, 10 rows. Landrace. Seed.
476671. I-7-2871. 8-soros feher. Hungary. Domsodi. Seeds white, flint hard type, 8 rows. Landrace. Seed.
476672. I-7-2917. Feher simaszemu. Hungary. Vaci. Seeds white, smooth flint pearl type, 10-12 rows. Landrace. Seed.

476673 TO 476678. *Acroceras macrum* Stapf (Poaceae) Nilegrass.

From South Africa. Donated by M. Farina; Department of Agriculture & Fisheries, Natal Region, Cedara College; Pietermaritzburg 3200.  
Received January 1983.

476673. Am 1. South Africa. Escourt, Natal. Diploid number 54. Resistant to iron deficiency. Cultivated. Plants.
476674. Am 5. Zimbabwe. Diploid number 36. Cultivated. Plants.
476675. Am 19. South Africa. Bred in Cedara. Diploid number 45. Cultivated. Plants.
476676. Am 26. South Africa. Bred in Cedara. Diploid number 36. Medium resistance to iron deficiency. Cultivated. Plants.
476677. Am 38. South Africa. Bred in Cedara. Diploid number 45. Medium resistance to iron deficiency. Cultivated. Plants.
476678. Am 51. South Africa. Bred in Cedara. Diploid number 36. Cultivated. Plants.

476679. *Phaseolus anisotrichus* Schlechter (Fabaceae).

From Mexico. Collected by G. F. Freytag and N. G. Vakili; Mayaguez Institute of Tropical Agriculture, U.S. Department of Agriculture; Mayaguez, Puerto Rico.  
Received September 1980.

VF-78-Mex. 98. Mexico. Collected September 29, 1978.  
Route 190 - km 1 S. Cristobal-Comitan-Ocosingo. 16 deg. 40' N, 92 deg. 30' W. 2130m. Some pods diseased. Seeds red. Cultivated. Seed.

476680 TO 476703. *Phaseolus vulgaris* L. (Fabaceae) Garden bean.

From Mexico. Collected by G. F. Freytag and N. G. Vakili;  
Mayaguez Institute of Tropical Agriculture, U.S.  
Department of Agriculture; Mayaguez, Puerto Rico.  
Received September 1980.

476680. VF-78-Mex. 3. Mexico. Collected September 15, 1978.  
Store, Huitzalac. Lat. 20 deg. N, Long. 99 deg. 22' W.  
2300m. Seeds black, shiny. Cultivated. Seed.
476681. VF-78-Mex. 20. Mexico. Collected September 18, 1978.  
Market, Banderilla. Rte. 140, km 12. Lat. 19 deg. 33' N,  
Long. 96 deg. 56' W. 1390m. Cultivated. Seed.
476682. VF-78-Mex. 21-2. Mexico. Collected September 19, 1978.  
Field, on road to Orizaba, Huatusco, Estado Veracruz. Lat.  
19 deg. 13' N, Long. 96 deg. 57' W. Mostly tropical.  
Local name Parraleno. Cultivated. Seed.
476683. VF-78-Mex. 47. Mexico. Collected September 21, 1978.  
Market, Caxaca. Lat. 17 deg. 05' N, Long. 96 deg. 45' W.  
1500m. Local name Frijol colorado. Cultivated. Seed.
476684. VF-78-Mex. 54. Mexico. Collected September 21, 1978.  
Market, Caxaca. Lat. 17 deg. 07' N, Long. 96 deg. 45' W.  
Local name Frijol Bolita. Cultivated. Seed.
476685. VF-78-Mex. 55. Mexico. Collected September 21, 1978. Lat.  
17 deg. 07' N, Long. 96 deg. 45' W. Local name Frijol  
Tehuacanero. Cultivated. Seed.
476686. VF-78-Mex. 56. Mexico. Collected September 21, 1978. Lat.  
17 deg. 07' N, Long. 96 deg. 45' W. Local name Frijol  
Nayarit. Cultivated. Seed.
476687. VF-78-Mex. 71. Mexico. Collected September 24, 1978.  
Market, Ccozocautla. Lat. 16 deg. 45' N, Long. 93 deg.  
20' W. Plants local. Local name Frijol negro. Cultivated.  
Seed.
476688. VF-78-Mex. 79. Mexico. Collected September 27, 1978.  
Market, Coapilla. Lat. 17 deg. 05' N, Long. 93 deg. 05' W.  
1500m. Plants grown in cool highlands. Local name Frijol  
criollo negro. Cultivated. Seed.
476689. VF-78-Mex. 80. Mexico. Collected September 27, 1978.  
Market, Coapilla. Lat. 17 deg. 05' N, Long. 93 deg. 05' W.  
1500m. Plants grown in warm areas. Local name Frijol  
criollo negro. Cultivated. Seed.
476690. VF-78-Mex. 81-2. Mexico. Collected September 27, 1978.  
Market, Coapilla. Lat. 17 deg. 05' N, Long. 93 deg. 05' W.  
1500m. Originally from Llano Grande. Seeds red. Local

476680 TO 476703-continued

name Frijol colorado. Cultivated. Seed.

476691. VF-78-Mex. 82. Mexico. Collected September 27, 1978. Market, Coapilla. Lat. 17 deg. 05' N, Long. 93 deg. 05' W. 1500m. Originally from Llano Grande. Local name Blanco. Cultivated. Seed.
476692. VF-78-Mex. 83. Mexico. Collected September 27, 1978. Market, Coapilla. Lat. 17 deg. 05' N, Long. 93 deg. 05' W. 1500m. Originally from Llano Grande. Local name Negro. Cultivated. Seed.
476693. VF-78-Mex. 85. Mexico. Collected September 27, 1978. Market, Coapilla. Lat. 17 deg. 05' N, Long. 93 deg. 05' W. 1500m. Originally from Huacano. Local name Frijol negro. Cultivated. Seed.
476694. VF-78-Mex. 90. Mexico. Collected September 28, 1978. Market, San Cristobal de las Casas. Lat. 18 deg. 38' N, Long. 90 deg. 47' W. Originally from Mata Moros. Local name Frijol colorado. Cultivated. Seed.
476695. VF-78-Mex. 91. Mexico. Collected September 28, 1978. Market, San Cristobal de las Casas. Lat. 16 deg. 30' N, Long. 92 deg. 30' W. Originally from Teopisca. Local name Frijol de Vega. Cultivated. Seed.
476696. VF-78-Mex. 92. Mexico. Collected September 28, 1978. Market, San Cristobal de las Casas. Lat. 16 deg. 48' N, Long. 92 deg. 37' W. Originally from San Andres. Local name Frijol coloradito. Cultivated. Seed.
476697. VF-78-Mex. 93. Mexico. Collected September 28, 1978. Market, San Cristobal de las Casas. Lat. 16 deg. 48' N, Long. 92 deg. 37' W. Local name Frijol de Suelo (Fan de Lo). Cultivated. Seed.
476698. VF-78-Mex. 94. Mexico. Collected September 28, 1978. Market, San Cristobal de las Casas. Lat. 16 deg. 48' N, Long. 92 deg. 37' W. Originally from Tierra Caliente. Local name Frijol de Suelo (Congoria). Cultivated. Seed.
476699. VF-78-Mex. 102. Mexico. Collected September 29, 1978. Market, Comitán. Lat. 16 deg. 15' N, Long. 92 deg. 30' W. 1400m. Local name Frijol varreton. Cultivated. Seed.
476700. VF-78-Mex. 103. Mexico. Collected September 29, 1978. Market, Comitán. Lat. 16 deg. 15' N, Long. 92 deg. 30' W. 1400m. Local name Frijol blanco. Cultivated. Seed.
476701. VF-78-Mex. 108. Mexico. Collected September 30, 1978. Market, Tapachula. Lat. 14 deg. 57' N, Long. 92 deg. 15' W. 220m. Local name Frijol bayo. Cultivated. Seed.

476680 TO 476703-continued

476702. VF-78-Mex. 112. Mexico. Collected September 30, 1978. Market, Tapachula. Lat. 14 deg. 57' N, Long. 92 deg. 15' W. 220m. Originally from Puebla. Local name Frijol blanco Chico de suelo. Cultivated. Seed.

476703. VF-78-Mex. 113. Mexico. Collected September 30, 1978. Market, Tapachula. Lat. 14 deg. 57' N, Long. 92 deg. 15' W. 220m. Local name Frijol de vara de Tierra caliente. Cultivated. Seed.

476704. *Phaseolus coccineus* L. subsp. *coccineus* (Fabaceae).

From Guatemala. Collected by G. F. Freytag and N. G. Vakili; Mayaguez Institute of Tropical Agriculture, U.S. Department of Agriculture; Mayaguez, Puerto Rico. Received September 1980.

VF-78-Guat. 109. Collected October 09, 1978. San Juan Ixcoy, Km 321.5 Hwy 9N. Lat. 15 deg. 35' N, Long. 91 deg. 26' W. 2222m. Roadside Huehuetenango to Soloma. Among weeds and shrubs on steep limestone slope. Plants viney, diseased. Roots deep, tuberous. Leaves small, variegated with some variation. Flowers primitive, red. Wild. Seed.

476705 TO 476757. *Phaseolus vulgaris* L. (Fabaceae) Garden bean.

From Guatemala. Collected by G. F. Freytag and N. G. Vakili; Mayaguez Institute of Tropical Agriculture, U.S. Department of Agriculture; Mayaguez, Puerto Rico. Received September 1980.

476705. VF-78-Guat. 5. Guatemala. Collected October 01, 1978. Market, Chimaltenango. Lat. 14 deg. 40' N, Long. 90 deg. 49' W. Originally from Alameda. Cultivated. Seed.

476706. VF-78-Guat. 13. Guatemala. Collected October 01, 1978. Market, San Andres Itzapa. Lat. 14 deg. 37' N, Long. 90 deg. 51' W. De Suelo el cerrito. Cultivated. Seed.

476707. VF-78-Guat. 21. Guatemala. Collected October 04, 1978. Market, Jalapa. Lat. 14 deg. 38' N, Long. 89 deg. 59' W. 1240m. Originally from La Cumbre. Cultivated. Seed.

476708. VF-78-Guat. 22. Guatemala. Collected October 04, 1978. Market, Jalapa. Lat. 14 deg. 38' N, Long. 89 deg. 59' W. 1240m. Originally from La Cumbre. Cultivated. Seed.

476709. VF-78-Guat. 23. Guatemala. Collected October 04, 1978. Market, Jalapa. Lat. 14 deg. 38' N, Long. 89 deg. 59' W. 1240m. Originally from La Cumbre. Cultivated. Seed.

476705 TO 476757-continued

476710. VF-78-Guat. 24. Guatemala. Collected October 04, 1978. Market, Jalapa. Lat. 14 deg. 38' N, Long. 89 deg. 59' W. 1240m. Originally from La Cumbre. Local name Frijol de Suelo. Cultivated. Seed.
476711. VF-78-Guat. 25. Guatemala. Collected October 04, 1978. Market, Jalapa. Lat. 14 deg. 31' N, Long. 89 deg. 46' W. Originally from San Manuel Chaparron. Cultivated. Seed.
476712. VF-78-Guat. 26. Guatemala. Collected October 04, 1978. Market, Jalapa. Lat. 14 deg. 40' N, Long. 89 deg. 51' W. Originally from San Pedro Pinula. Cultivated. Seed.
476713. VF-78-Guat. 28. Guatemala. Collected October 04, 1978. Market, Jalapa. Lat. 14 deg. 38' N, Long. 89 deg. 59' W. Originally from Caserio Shical. Cultivated. Seed.
476714. VF-78-Guat. 31. Guatemala. Collected October 04, 1978. Market, San Pedro Pinula. Lat. 14 deg. 40' N, Long. 89 deg. 51' W. 1040m. Originally from Aldea San Ignacio. Local name Frijol de Suelo. Cultivated. Seed.
476715. VF-78-Guat. 32. Guatemala. Collected October 04, 1978. Field, km 108, La Cumbre. Lat. 14 deg. 38' N, Long. 90 deg. 02' W. 1450m. Growing in black soil. Local name Frijol de Suelo. Cultivated. Seed.
476716. VF-78-Guat. 35. Guatemala. Collected October 04, 1978. Market, San Pedro Pinula. Lat. 14 deg. 40' N, Long. 89 deg. 51' W. 1040m. Originally from Los Corralitos. Local name Frijol blanco. Cultivated. Seed.
476717. VF-78-Guat. 37. Guatemala. Collected October 04, 1978. Market, San Pedro Pinula. Lat. 14 deg. 40' N, Long. 89 deg. 51' W. 1040m. Originally from La Cumbre. Local name Frijol blanco. Cultivated. Seed.
476718. VF-78-Guat. 38. Guatemala. Collected October 04, 1978. Market, San Pedro Pinula. Lat. 14 deg. 40' N, Long. 89 deg. 51' W. 1040m. Originally from Aldea Sunso. Local name Frijol rojo. Cultivated. Seed.
476719. VF-78-Guat. 39. Guatemala. Collected October 04, 1978. Market, San Pedro Pinula. Lat. 14 deg. 40' N, Long. 89 deg. 51' W. 1040m. Originally from Aldea Arenal. Local name Frijol de Suelo. Cultivated. Seed.
476720. VF-78-Guat. 40. Guatemala. Collected October 04, 1978. Km 105, Aldea el Paraiso. Lat. 14 deg. 38' N, Long. 90 deg. 03' W. 1610m. Local name Frijol Rinon. Cultivated. Seed.

476705 TO 476757-continued

476721. VF-78-Guat. 41A. Guatemala. Collected October 04, 1978. Aldea el Paraiso. Lat. 14 deg. 38' N, Long. 90 deg. 03' W. 1610m. Local name Frijol blanco. Cultivated. Seed.
476722. VF-78-Guat. 41B. Guatemala. Collected October 04, 1978. Aldea el Paraiso. Lat. 14 deg. 38' N, Long. 90 deg. 03' W. 1610m. Local name Frijol negro. Cultivated. Seed.
476723. VF-78-Guat. 48. Guatemala. Collected October 06, 1978. Market, Panajachel. Lat. 14 deg. 44' N, Long. 91 deg. 09' W. 1700m. Originally from Lake Atitlan. Local name Negro de Suelo. Cultivated. Seed.
476724. VF-78-Guat. 49. Guatemala. Collected October 06, 1978. Market, Panajachel. Lat. 14 deg. 44' N, Long. 91 deg. 09' W. 1700m. Local type. Local name Blanco. Cultivated. Seed.
476725. VF-78-Guat. 52. Guatemala. Collected October 07, 1978. Market, Solola. Lat. 14 deg. 45' N, Long. 91 deg. 08' W. Originally from San Andres Semetabaj. Local name Frijol de Suelo. Cultivated. Seed.
476726. VF-78-Guat. 53. Guatemala. Collected October 07, 1978. Market, Solola. Lat. 14 deg. 46' N, Long. 91 deg. 10' W. 1770m. Local name Frijol blanco. Cultivated. Seed.
476727. VF-78-Guat. 67. Guatemala. Collected October 08, 1978. Market, Quetzaltenango. Lat. 14 deg. 51' N, Long. 91 deg. 31' W. Originally from Quiche. Local name Frijol de Vara. Cultivated. Seed.
476728. VF-78-Guat. 68. Guatemala. Collected October 08, 1978. Market, Quetzaltenango. Lat. 14 deg. 51' N, Long. 91 deg. 31' W. Originally from Quiche. Local name Frijol blanco. Cultivated. Seed.
476729. VF-78-Guat. 69. Guatemala. Collected October 08, 1978. Market, Quetzaltenango. Lat. 14 deg. 51' N, Long. 91 deg. 31' W. Originally from Quiche. Local name Frijol rojo. Cultivated. Seed.
476730. VF-78-Guat. 71. Guatemala. Collected October 08, 1978. Market, Quetzaltenango. Lat. 14 deg. 51' N, Long. 91 deg. 31' W. Originally from Quiche. Local name Negro de Suelo. Cultivated. Seed.
476731. VF-78-Guat. 74. Guatemala. Collected October 08, 1978. Market, Quetzaltenango. Lat. 14 deg. 51' N, Long. 91 deg. 31' W. Originally from Quiche. Local name Frijol Blanco de Vara. Cultivated. Seed.
476732. VF-78-Guat. 103. Guatemala. Collected October 09, 1978.



476705 TO 476757-continued

- Aguacatan. Lat. 15 deg. 21' N, Long. 91 deg. 18' W. Local name Frijol enredador. Cultivated. Seed.
476733. VF-78-Guat. 105. Guatemala. Collected October 09, 1978. Aguacatan. Lat. 15 deg. 21' N, Long. 91 deg. 18' W. Local name Frijol rojo de Suelo. Cultivated. Seed.
476734. VF-78-Guat. 106. Guatemala. Collected October 09, 1978. Aguacatan. Lat. 15 deg. 21' N, Long. 91 deg. 18' W. Local name Frijol rinon. Cultivated. Seed.
476735. VF-78-Guat. 107B. Guatemala. Collected October 09, 1978. Estancia. Lat. 15 deg. 20' N, Long. 91 deg. 20' W. Local name Frijol chambrote. Cultivated. Seed.
476736. VF-78-Guat. 108. Guatemala. Collected October 09, 1978. Estancia. Lat. 15 deg. 20' N, Long. 91 deg. 20' W. Local name Frijol Moteado. Cultivated. Seed.
476737. VF-78-Guat. 111. Guatemala. Collected October 09, 1978. Market, Soloma. Lat. 14 deg. 39' N, Long. 91 deg. 27' W. Originally from Aldea de Cantel. Local name Frijol de Mata. Cultivated. Seed.
476738. VF-78-Guat. 115. Guatemala. Collected October 09, 1978. Km 24, Aguacatan. Lat. 15 deg. 21' N, Long. 91 deg. 18' W. 1620m. Local name "Tricum Quiak". Seeds red. Cultivated. Seed.
476739. VF-78-Guat. 117. Guatemala. Collected October 09, 1978. Market, Sacapulas. Lat. 15 deg. 17' N, Long. 91 deg. 05' W. 1180m. Local name Frijol blanco de Suelo. Cultivated. Seed.
476740. VF-78-Guat. 117B. Guatemala. Collected October 09, 1978. Market, Sacapulas. Lat. 15 deg. 17' N, Long. 91 deg. 05' W. 1180m. Cultivated. Seed.
476741. VF-78-Guat. 118. Guatemala. Collected October 09, 1978. Market, Sacapulas. Lat. 15 deg. 17' N, Long. 91 deg. 05' W. 1180m. Local name Frijol negro de Suelo. Cultivated. Seed.
476742. VF-78-Guat. 119. Guatemala. Collected October 09, 1978. Cunen. Lat. 15 deg. 21' N, Long. 91 deg. 01' W. 1750m. Originally from Mata. Local name Frijol. Cultivated. Seed.
476743. VF-78-Guat. 122. Guatemala. Collected October 09, 1978. San Miguel Uspantan. Lat. 15 deg. 21' N, Long. 90 deg. 52' W. 1950m. Originally from Mata. Local name Frijol negro. Cultivated. Seed.
476744. VF-78-Guat. 123. Guatemala. Collected October 09, 1978.

476705 TO 476757-continued

- Market, San Miguel Uspantan. Lat. 15 deg. 21' N, Long. 90 deg. 52' W. 1850m. Originally from Vara. Local name Frijol colorado. Cultivated. Seed.
476745. VF-78-Guat. 124. Guatemala. Collected October 09, 1978. Market, San Miguel Uspantan. Lat. 15 deg. 21' N, Long. 90 deg. 52' W. 1850m. Originally from Vara. Local name Frijol blanco. Cultivated. Seed.
476746. VF-78-Guat. 125. Guatemala. Collected October 09, 1978. Market, Chicaman. Lat. 15 deg. 21' N, Long. 90 deg. 52' W. 1400m. Originally from Vara. Local name Frijol. Cultivated. Seed.
476747. VF-78-Guat. 129. Guatemala. Collected October 12, 1978. Market, Coban. Lat. 15 deg. 28' N, Long. 90 deg. 22' W. Local name Frijol negro de Suelo. Cultivated. Seed.
476748. VF-78-Guat. 130. Guatemala. Collected October 12, 1978. Market, Coban. Lat. 15 deg. 04' N, Long. 90 deg. 29' W. 980m. Originally from Rabinal. Local name Frijol blanco de Suelo. Cultivated. Seed.
476749. VF-78-Guat. 131. Guatemala. Collected October 12, 1978. Market, Coban. Lat. 15 deg. 04' N, Long. 90 deg. 29' W. 980m. Originally from Rabinal. Local name Frijol rojo. Cultivated. Seed.
476750. VF-78-Guat. 133. Guatemala. Collected October 12, 1978. Market, Tactic. Lat. 15 deg. 05' N, Long. 90 deg. 23' W. 980m. Originally from Chicaj. Cultivated. Seed.
476751. VF-78-Guat. 136. Guatemala. Collected October 12, 1978. Market, Tactic. Lat. 15 deg. 20' N, Long. 90 deg. 21' W. 1550m. Local name Frijol colorado. Cultivated. Seed.
476752. VF-78-Guat. 137A. Guatemala. Collected October 12, 1978. Market, Salama. Lat. 15 deg. 05' N, Long. 90 deg. 23' W. 980m. Originally from San Miguel Chicaj. Local name Frijol suklik. Cultivated. Seed.
476753. VF-78-Guat. 140. Guatemala. Collected October 12, 1978. Market, Salama. Lat. 15 deg. 06' N, Long. 90 deg. 19' W. 1060m. Originally from Las Limas. Local name Frijol de Suelo. Cultivated. Seed.
476754. VF-78-Guat. 141. Guatemala. Collected October 12, 1978. Market, Salama. Lat. 15 deg. 06' N, Long. 90 deg. 19' W. 1060m. Local name Frijol colorado. Cultivated. Seed.
476755. VF-78-Guat. 142. Guatemala. Collected October 12, 1978. Market, Rabinal. Lat. 15 deg. 04' N, Long. 90 deg. 29' W. 980m. Originally from Chol. Cultivated. Seed.

476705 TO 476757-continued

476756. VF-78-Guat. 143. Guatemala. Collected October 12, 1978.  
Market, Rabinal. Lat. 15 deg. 05' N, Long. 90 deg. 23' W.  
980m. Originally from San Miguel Chicaj. Cultivated. Seed.

476757. VF-78-Guat. 144. Guatemala. Collected October 12, 1978.  
Market, Rabinal. Lat. 15 deg. 04' N, Long. 90 deg. 29' W.  
Originally from Sttokok. Cultivated. Seed.

476758. *Rhododendron* hybrid (Ericaceae).

From United States. Donated by National Arboretum, U.S.  
Department of Agriculture; Washington, D.C.  
Received January 1983.

NA 36544. 'Pryored'. United States. R.L. Pryor. Crosses  
among *R. prunifolium* (2/8), *R. mollis* (3/8), and *R.*  
*indicum* (3/9). Ten year-old plant, 1.0 x 0.6m tall, hardy  
to USDA zone 5. Flowers mid-season, red (Red 42A RHS)  
with no blue pigment, hose-in-hose. Perennial Woody.  
Cultivar. Plants.

476759. *Helianthus annuus* L. (Asteraceae) Sunflower.

From Bulgaria. Donated by Institute for Wheat and Sunflower  
Research; General Toshevo.  
Received January 1983.

HB-783. Bulgaria. Cultivated. Seed.

476760 TO 476771. *Triticum aestivum* L. (Poaceae) Common wheat.

From Bulgaria. Donated by Institute for Wheat and Sunflower  
Research; General Toshevo.  
Received January 1983.

476760. 69-134. Bulgaria. Cultivated. Seed.

476761. 76-75. Bulgaria. Cultivated. Seed.

476762. 285-392. Bulgaria. Cultivated. Seed.

476763. 363-115. Bulgaria. Cultivated. Seed.

476764. 433-73. Bulgaria. Cultivated. Seed.

476765. 536 IIC-72. Soviet Union. Cultivated. Seed.

476766. 668-19. Bulgaria. Cultivated. Seed.

476760 TO 476771-continued

- 476767. 3169-153. Bulgaria. Cultivated. Seed.
- 476768. 4973-139. Bulgaria. Cultivated. Seed.
- 476769. 5460-965. Bulgaria. Cultivated. Seed.
- 476770. 5460-981. Bulgaria. Cultivated. Seed.
- 476771. 8183-3. Bulgaria. Cultivated. Seed.

476772 TO 476796. *Triticum durum* Desf. (Poaceae) Durum wheat.

From Bulgaria. Donated by Institute for Wheat and Sunflower Research; General Toshevo.  
Received January 1983.

- 476772. Bu-22. Bulgaria. Cultivated. Seed.
- 476773. Canobo-K-88. Bulgaria. Cultivated. Seed.
- 476774. Charodinka. Bulgaria. Cultivated. Seed.
- 476775. Flamura. Soviet Union. Cultivated. Seed.
- 476776. Kardam. Bulgaria. Cultivated. Seed.
- 476777. Kiten. Bulgaria. Cultivated. Seed.
- 476778. Kremena. Bulgaria. Cultivated. Seed.
- 476779. Kubrat 1. Bulgaria. Cultivated. Seed.
- 476780. Levent. Bulgaria. Cultivated. Seed.
- 476781. Lovrin 34. Soviet Union. Cultivated. Seed.
- 476782. Ludogorka. Bulgaria. Cultivated. Seed.
- 476783. Mv-2-24-18. Bulgaria. Cultivated. Seed.
- 476784. Mv 22-77. Bulgaria. Cultivated. Seed.
- 476785. Ogosta. Bulgaria. Cultivated. Seed.
- 476786. Pliska. Bulgaria. Cultivated. Seed.
- 476787. Pusalka. Bulgaria. Cultivated. Seed.
- 476788. Sadovo. Bulgaria. Cultivated. Seed.
- 476789. Sadovo super. Bulgaria. Cultivated. Seed.

476772 TO 476796-continued

- 476790. Skitia. Bulgaria. Cultivated. Seed.
- 476791. Slavyanka. Bulgaria. Cultivated. Seed.
- 476792. So-6300. Soviet Union. Cultivated. Seed.
- 476793. Trakia. Bulgaria. Cultivated. Seed.
- 476794. Vratsa. Bulgaria. Cultivated. Seed.
- 476795. Yulbei. Bulgaria. Cultivated. Seed.
- 476796. Zlataklac. Bulgaria. Cultivated. Seed.

476797 TO 476806. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by M. E. Sorrells; Department of Plant Breeding and Biometry, Cornell University; Ithaca, New York.

Received February 1983.

- 476797. 5954-5-30. United States. B/N10//82A1/3/H-HR/YW/4/GE/CI12658/ALASKAN/3/AVON. Seeds soft, white. Winter Annual. Breeding Material. Seed.
- 476798. 6120-10. United States. GE/CI12658//BURT/3/HNVII/4/GE. Seeds soft, white. Winter Annual. Breeding Material. Seed.
- 476799. 6432-3. United States. HNVII//P5752C1-7(ATR SIB)/TALBOT. Seeds soft, white. Winter Annual. Breeding Material. Seed.
- 476800. 6432-4. United States. HNVII//P5752C1-7(ATR SIB)/TALBOT. Seeds soft, white. Winter Annual. Breeding Material. Seed.
- 476801. 6432-37. United States. HNVII//P5752C1-7(ATR SIB)/TALBOT. Seeds soft, white. Winter Annual. Breeding Material. Seed.
- 476802. 6432-43. United States. HNVII//P5752C1-7(ATR SIB)/TALBOT. Seeds soft, white. Winter Annual. Breeding Material. Seed.
- 476803. 6433A3-4. United States. HNVII//AVON/YS SIB. Seeds soft, white. Winter Annual. Breeding Material. Seed.
- 476804. 6708-13. United States. RCT//HNVII/5517/3/6634(W.TSEC). Seeds soft, white. Winter Annual. Breeding Material. Seed.
- 476805. 66121-6. United States. 5517-3-24//54117-2-5/SU92. Seeds soft. Winter Annual. Breeding Material. Seed.
- 476806. 66152-4. United States. RCT//HNVII/5517/3/FLAMINGO. Seeds soft, white. Winter Annual. Breeding Material. Seed.

476807. *Bromus inermis* Leyss. (Poaceae) Smooth brome grass.

From China, Peoples Repub of. Donated by Inner Mongolian College of Agriculture and Animal Husbandry; Hohehot, Inner Mongolia.

Received December 1982.

China, Peoples Repub of. Seed.

476808. *Bothriochloa caucasica* (Trin.) C.E. Hubb (Poaceae) Caucasian bluestem.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.

Received January 1983.

Soviet Union. Seed.

476809. *Bothriochloa ischaemum* (L.) Keng (Poaceae) Yellow bluestem.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad.

Received January 1983.

Soviet Union. Seed.

476810. *Avena sativa* L. (Poaceae) Common oat.

From United States. Donated by R. A. Forsberg & M. A. Brinkman; Wisconsin Agricultural Experiment Station, University of Wisconsin; Madison.

Received February 1983.

X4024-7. 'Centennial'. Holden/5/Garland/3/6x-amphiploid/C.I. 6936/2/C.I. 6936 /4/Garland/6/Frocker/Stormont. Midseason in maturity. Grain yield averages have exceeded those for all cultivars except Ogle and Porter. Seeds yellow, high test weight and groat percentage, and plump groats. Good resistance to crown rust and smut, but susceptible to barley yellow dwarf virus. Contains A & B genes for stem rust resistance. Straw strength equal to most midseason varieties. Cultivated. Seed.

476811 TO 476812. *Hordeum vulgare* L. (Poaceae) Barley.

From Germany, Federal Rep of. Donated by F. von Lochow-Petkus GMBH; 3410 Northeim 13.

Received January 1983.

476811. 'Ginso'. Germany, Federal Rep of. Dura x Senta /x

**476811 TO 476812-continued**

Vogelsanger Gold. Six-row, awned type. Straw stiff, little breaking. Resistant to mildew, brown rust, and leaf spot. Winterhardiness high. Winter Annual. Cultivar. Seed.

**476812.** 'Sigra'. Germany, Federal Rep of. Dunja x Ogra. Six-row, awnless type. Straw stiff, little breaking. Resistant to mildew, brown rust, and leaf spot. Winter Annual. Cultivar. Seed.

**476813. *Triticum aestivum* L. (Poaceae) Common wheat.**

From Germany, Federal Rep of. Donated by F. von Lochow-Petkus GMBH; 3410 Northeim 13.  
Received January 1983.

'Sperber'. Germany, Federal Rep of. Robert x Merlin /x Kormoran. Seeds large. Baking quality good. Low to medium susceptibility to mildew. Medium susceptibility to stripe rust. Winter Annual. Cultivar. Seed.

**476814 TO 476815. *Panicum amarum* var. *amarulum* (Hitchc. & Chase) P. G. Palmer (Poaceae).**

From United States. Donated by National Plant Materials Center, SCS, USDA; Beltsville, Maryland.  
Received February 1983.

**476814.** T 16952. United States. Collected September 24, 1941. Virginia Beach, Virginia. Perennial Herb. Wild. Seed.

**476815.** T 16954. United States. Manteo, North Carolina. Seed production heavy. Perennial Herb. Wild. Seed.

**476816. *Atriplex canescens* (Pursh) Nutt. (Chenopodiaceae) Fourwing saltbush.**

From United States. Donated by Lockeford Plant Materials Center, SCS, USDA; Lockeford, California. Received through National Plant Materials Center, SCS, Beltsville, MD.  
Received February 1983.

T 6286. Marana. United States. Collected November 20, 1961. El Cajon, California. 162m. Superior to other accessions tested in Mediterranean-type climate. Perennial Woody. Cultivar. Seed.

**476817. *Lolium* hybrid (Poaceae).**

From United States. Donated by Lockeford Plant Materials Center,

**476817-continued**

SCS, USDA; Lockeford, California. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 6402. Wimmera 62. Australia. *Lolium rigidum* x *L. multiflorum*. Maturity early. Plants deep bright green, erect, awnless. Provides rapid cover for erosion control. Annual. Cultivar. Seed.

**476818 TO 476819. *Oryza sativa* L. (Poaceae) Rice.**

From United States. Donated by C. N. Bollich; Rice Research, U.S. Department of Agriculture, Agricultural Research and Extension Center; Beaumont, Texas. Received February 1983.

476818. 'Pecos'. United States. CI 9545//Gulfrose/PI215936. Released by ARS, USDA and the Texas, Louisiana and Mississippi Agricultural Experiment Stations. Medium grain type. Plants short. Leaves very upright, short, wide, glabrous. Spikelets gold, awnless, glabrous. Outer glumes dark purple. Yield superior to Nato, Saturn, equal to Mars. Milling quality good. Resistant to lodging, physiological straighthead disease, white tip, and narrow brown leaf spot. Moderately susceptible to blast fungus and sheath blight. Cultivar. Seed.

476819. 'Skybonnet'. United States. 'Bluebelle'/'Belle Patna'/'Dawn'. Released by ARS, USDA and the Texas, Louisiana and Mississippi Agricultural Experiment Stations. Long grain type. Plants short, leaves small, glabrous. Spikelets straw-colored, awnless, glabrous. Yield superior to Labelle and Starbonnet, equal to Lebonnet. Resistant to lodging, blast fungus, and panicle blight. Very susceptible to sheath blight disease. Moderately resistant to physiological straighthead disease, brown spot and narrow leaf spot. Cultivar. Seed.

**476820. *Chenopodium quinoa* Willd. (Chenopodiaceae) Quinoa.**

From Mexico. Donated by F. Cardenas Ramos; Instituto Nacional de Investigaciones Agricolas; Mexico 1, D.F. Received February 1983.

Santa Elena 7. Mexico. Chapingo area. Inflorescence used as a cooked vegetable similar to broccoli. Local name Huazontle. Cultivated. Seed.

**476821 TO 476847. *Arachis hypogaea* L. (Fabaceae) Peanut.**

From China, Peoples Repub of. Donated by R. O. Hammons & D. M.



476821 TO 476847-continued

Porter; Crops Research Unit and Tidewater Research Center, U. S. Department of Agriculture; Tifton, Georgia and Suffolk, Virginia, USA. Code numbers refer to designations assigned by R. O. Hammons and D. M. Porter. Received February 1983.

476821. HP 1. Bai sha 1016. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds tan. Cultivated. Seed.
476822. HP 2. 68-2. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Virginia type. Pods two-segmented. Seeds pink. Cultivated. Seed.
476823. HP 3. Xu xi 4. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Virginia type. Pods two-segmented. Seeds pink. Resistant to *Cercospora archidicola*. Cultivated. Seed.
476824. HP 4. 320-14. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds tan. Resistant to bacterial wilt. Cultivated. Seed.
476825. HP 5. Hai hua 1. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds tan. Resistant to bacterial wilt. Cultivated. Seed.
476826. HP 6. Yi shui zao shu. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Virginia type. Early maturity. Pods two-segmented. Seeds pink. Cultivated. Seed.
476827. HP 7. Hong hua 1. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds tan. Cultivated. Seed.
476828. HP 8. You ma 1. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Var. *hirsuta* type. Pods three-segmented. Seeds pink. Cultivated. Seed.
476829. HP 9. Che ke hua sheng. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two segmented. Seeds tan. Cultivated. Seed.
476830. HP 10. Bai hua sheng. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Pods inflated, two-segmented. Seeds white. Cultivated.

476821 TO 476847-continued  
Seed.

476831. HP 11. Fu jia ping 17 dui hua sheng. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds tan. Cultivated. Seed.
476832. HP 13. Jan xi 6802-3. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds tan. Cultivated. Seed.
476833. HP 14. Zhan dou 2. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds pink. Cultivated. Seed.
476834. HP 15. Yue you 589. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds tan. Resistant to bacterial wilt. Cultivated. Seed.
476835. HP 16. He you 2. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Virginia type. Pods constricted, two-segmented. Seeds pink. Cultivated. Seed.
476836. HP 17. Zi jin zhong. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Spanish type. Pods two-segmented. Seeds tan. Cultivated. Seed.
476837. HP 18. Nan fu luo. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Virginia type hybrid with variety hirsuta. Pods two-segmented. Seeds pink. Cultivated. Seed.
476838. HP 19. Pu yang ruan yang. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Virginia type. Pods two-segmented. Resistant to Cercospora arachidicola. Cultivated. Seed.
476839. HP 20. Xong luo 9. China, Peoples Repub of. Wuhan, Hubei. Inst. of Oil Crops, Chinese Acad. of Agri. Science. Virginia type. Pods two-segmented. Seeds pink. Resistant to Cercospora arachidicola. Cultivated. Seed.
476840. HP 21. Kainong 8. China, Peoples Repub of. Zhengzhou, Henan. Econ. Crops Res. Inst., Henan Acad. of Agri. Sci. Virginia type. Seeds pink. Cultivated. Seed.
476841. HP 22. Zheng zhou 7432. China, Peoples Repub of. Zhengzhou, Henan. Econ. Crops Res. Inst., Henan Acad. of

476821 TO 476847-continued

Agri. Sci. . Virginia/Spanish type. Seeds pink.  
Cultivated. Seed.

476842. HP 23. Yue you 22. China, Peoples Repub of. Guangzhou, Guangdong. Guangdong Acad. of Agri. Sciences, Shipa. Spanish type. Pods two-segmented. Seeds tan. Cultivated. Seed.
476843. HP 24. Shi xuan 64. China, Peoples Repub of. Guangzhou, Guangdong. Guangdong Acad. of Agri. Sciences, Shipa. Spanish type. Pods two-segmented. Seeds tan. Cultivated. Seed.
476844. HP 26. De dou. China, Peoples Repub of. Guangzhou, Guangdong. Guangdong Acad. of Agri. Sciences, Shipa. Virginia type. Pods two-segmented. Seeds pink. Cultivated. Seed.
476845. HP 28. Hui za 24. China, Peoples Repub of. Guangzhou, Guangdong. Guangdong Acad. of Agri. Sciences, Shipa. Virginia type. Pods two-segmented. Seeds pink. Cultivated. Seed.
476846. HP 30. Zhan you 1. China, Peoples Repub of. Guangzhou, Guangdong. Guangdong Acad. of Agri. Sciences, Shipa. Spanish type. Pods two-segmented. Seeds tan. Cultivated. Seed.
476847. HP 31. Chen you 505. China, Peoples Repub of. Guangzhou, Guangdong. Guangdong Acad. of Agri. Sciences, Shipa. Virginia type. Pods two-segmented. Seeds pink. Cultivated. Seed.

476848. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by A. Garcia; World Seeds, Inc.;  
Carlsbad, California.  
Received February 1983.

Courtney. United States. FKN-II-50-18/4/Son64/TPP-Y54/2/  
Crim/3/Scn64-Y50D/P.Gto/2/Js. Hard red spring type.  
Cultivar. Seed.

476849 TO 476851. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by C. Bruns; North American Plant  
Breeders; Berthoud, Colorado.  
Received March 1983.

476849. 'Erik'. United States. Kitt//Waldron/Era. Maturity late.  
Straw strength good. Heads tapering, awned, with white

476849 TO 476851-continued

chaff. Adapted to northern spring wheat region of North and South Dakota and Minnesota. Moderately resistant to stem rust, leaf rust and tan spot. Susceptible to stripe rust and mildew. Cultivar. Seed.

476850. 'F.S. 401'. United States. Timwin/Monon. Maturity early. Straw strength good. Heads tapering, awned, with white chaff. Seeds red. Adapted to northern soft wheat region, Illinois, Indiana and Missouri. Moderately resistant to leaf rust, stem rust, powdery mildew, septoria and soil borne mosaic virus. Susceptible to hessian fly. Good milling and baking quality. Winter Annual. Cultivar. Seed.

476851. 'Jesse'. United States. II18889/Trapper//C0652643/3/Bara (Hawk sister). Maturity early to medium. Straw strength and lodging resistance good. Heads tapering, awned, with white chaff. Resistant to stem rust, soil borne mosaic virus. Moderate resistance to leaf rust and some tolerance to wheat streak mosaic virus. Susceptible to hessian fly. Winter Annual. Cultivar. Seed.

476852. *Fagopyrum esculentum* Moench (Polygonaceae) Buckwheat.

From United States. Donated by Scatterseed Project; Farmington, Maine.

Received January 1983.

United States. G. Ouellette farm, Lille, Maine. Upper Saint Johns River Valley. Grown by Acadian settlers for generations. Rotated with potatoes. Local name Madawaska. Cultivated. Seed.

476853. *Helianthus annuus* L. (Asteraceae) Sunflower.

From United States. Donated by North Central Regional Plant Introduction Station, Iowa State University; Ames, Iowa.

Received February 1983.

A-1849. 'Mammoth'. United States. Warninster, Pennsylvania. W. Atlee Burpee Seed Company. Received from Soil Conservation Service, USDA, Beltsville, Maryland. Heads convex, 15-38cm diameter, 90% single. Seed patterns, black-white, brown-white, white-black, gray-white, white-gray, white-brown. Thirteen per cent seed passed through 20/64 inch screen. Cultivar. Seed.

476854 TO 476855. *Avena sativa* L. (Poaceae) Common oat.

From Canada. Donated by Cereal Section, Ottawa Research Station; Ottawa, Ontario K1A 0C6.

476854 TO 476855-continued  
Received February 1983.

476854. OA501-1. Canada. OA309/2/Gemini/3932-16. Maturity 100 days. Plant height 113cm. Seeds large, naked. Bushel weight high. Resistant to lodging, smut. Susceptible to stem rust. Cultivated. Seed.

476855. OA519-1. Canada. Q060-2/3/Gemini/2/Gemini/A. fatua. Maturity 96 days. Plant height 128cm. Seeds covered. Yield high. Daylength insensitive. Resistant to lodging, smut. Some resistance to crown rust. Cultivated. Seed.

476856. *Vigna umbellata* (Thunb.) Ohwi & Ohashi (Fabaceae).

From Guatemala. Donated by Plenty Agricultural Project, c/o Embajada De Canada; Guatemala City.  
Received February 1983.

Guatemala. San Juan Sacatepequez. Contaminant with seed of *Phaseolus vulgaris*, PI 451886. Seed.

476857. *Cenchrus ciliaris* L. (Poaceae) Buffelgrass.

From Botswana. Collected by R. I. Butterfield; U.S. Agency for International Development; Gaborone.  
Received October 1981.

Botswana. Collected February 15, 1980. BLDC Ranch, Sebina. Plants erect, more or less bunching. Wild. Seed.

476858. *Phaseolus acutifolius* A. Gray (Fabaceae) Tepary bean.

From United States. Donated by Gary Nabhan; Meals for Millions/ Freedom from Hunger Foundation; Tucson, Arizona.  
Received February 1983.

PO1-004. Tepari blanco de Sonora. Mexico. Farm, Ures, Sonora. Collected by G. Nabhan and M. Drees. Donated by Fausto Martinez, Domicilio Conocido. Maturity 65-80 days. Plants 30-40cm tall, drought and heat resistant. Seeds white. Used in soup. Local name Frijol tepari. Cultivated. Seed.

476859. *Phaseolus lunatus* L. (Fabaceae) Lima bean.

From United States. Donated by Gary Nabhan; Meals for Millions/ Freedom from Hunger Foundation; Tucson, Arizona.  
Received February 1983.

476859-continued

P18-001. Hopi red. United States. Hopi Indian Reservation, Shongopavi, 2nd Mesa, Arizona. 1700m. Donated by Fred Kabotie. Selected from a very old gray mottled population. Maturity 80-100 days. Plants 40-80cm tall, climbing/vining habit. Drought resistant. Adapted to deep planting in sand dune areas. Probably resistant to root knot nematodes. Seeds bright red, solid to mottled. Used ceremonially as sprouts or boiled with salt pork. Local name Pala hatigo. Landrace. Seed.

476860 TO 476864. *Phaseolus vulgaris* L. (Fabaceae) Garden bean.

From United States. Donated by Gary Nabhan; Meals for Millions/  
Freedom from Hunger Foundation; Tucson, Arizona.  
Received February 1983.

476860. P09-001. United States. Farm, Dove Creek near Cortez and Mesa Verde, Colorado. A high elevation (2200m or higher) type, dry-land farmed. Cold tolerant. Seeds beige with brown patches/speckles. Taste good. Protein content higher than for irrigated pinto beans. Local name San Juan Pinto. Landrace. Seed.

476861. P11-001. United States. Farm, Manager's Dam, Papago Indian Reservation, Sells, Arizona. 500m. Donated by Fernando Mattia. Grown in desert borderlands near Mexico. Plants bush type. Maturity 65-90 days. Relatively heat and drought tolerant. Seeds highly variable in size and color. Local names Papago red bean/frijol rojo, bayo. Landrace. Seed.

476862. P12-001b. Mexico. Farm, Ures, Sonora. Donated by Fausto Martinez. Domocilio Conocido, Ures. Originally from San Pedro de las Cuevas, Sonora. Plants low bush type, heavy yielding. Local name Frijol vayo. Cultivated. Landrace. Seed.

476863. P12-003. United States. Santa Rosa, Papago Indian Reservation, Arizona. 900m. Donated by Salvador Channa. Originally introduced to desert Papago Indians from Mexico. Moderate tolerance to heat and drought. Seeds tan, yellow-brown. Local name Frijol vayo. Cultivated. Landrace. Seed.

476864. P12-004. Mexico. Vendor's market, near El Bahio, Sonora at border. Popular dry bean sold to Papago Indians. Probable heat and drought tolerance. Seeds orange-beige. Local name Frijol azufrado. Cultivated. Landrace. Seed.

476865. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata* (Fabaceae)  
Southern pea.

From United States. Donated by Gary Nabhan; Meals for Millions/  
Freedom from Hunger Foundation; Tucson, Arizona.

476865-continued

Received February 1983.

V01-002. Mexico. From Warihio Indians, Rio Mayo Watershed, Sonora. 500m. Collected by E. Powell, Navajo Gospel Mission. Donated by Manuel Mendoza. Grown by Warihio and Mayo Indians in subtropical/desert canyons. Seeds highly variable in shape, color, and mottling. Local name Frijol gamusa or Cajé muni. Landrace. Seed.

476866 TO 476872. *Zea mays* L. (Poaceae) Field corn.

From United States. Donated by Gary Nabhan; Meals for Millions/  
Freedom from Hunger Foundation; Tucson, Arizona.  
Received February 1983.

476866. Z03-001. Mexico. Farm, Terrero, Rio Mayo, Sonora. 500m. Collected by E. Powell, Navajo Gospel Mission. Donated by Valentin Becerra. Grown by Warihio Indians. Cobs 12-rowed. Seeds slightly dented, blue. Local names Ohcholi sunul/maiz azul. Landrace. Seed.
476867. Z03-002. United States. Farm, Isleta, 20km south of Albuquerque, New Mexico. 1600m. Grown by Pueblo Indians on irrigated flood plain of the Rio Grande. Cobs extremely long, 12-16 rowed. Seeds floury type, blue. Landrace. Seed.
476868. Z03-003. United States. Market, Taos Pueblo Indian Reservation, Rio Grande Valley, New Mexico. 2000m. Grown by Taos Indians on irrigation, high-elevation lands with short growing season. Cobs long. Seeds floury type, blue. Local name Blue corn. Landrace. Seed.
476869. Z03-004. United States. Hopi Indian Reservation, New Oraibi, Navajo County, Arizona. 1700m. Adapted to deep planting in sand dunes and dryland farming. Drought tolerant. Cobs 12-14 rowed. Seeds floury, blue. Used for making piki wafer bread. Landrace. Seed.
476870. Z06-001. United States. Hopi Indian Reservation, 2nd Mesa, Shungopavi, Arizona. 1700m. Donated by Hazel Dukepoo. Originally from Havasupai Indians. Dryland farmed on sand dunes. Cobs 12-rowed. Seeds floury, orange-red with yellow stripes. Landrace. Seed.
476871. Z15-002. Mexico. Farm, San Bernardo, Rio Mayo, Sonora. 500m. Collected by E. Powell, Navajo Gospel Mission. Donated by Borbon Doumer. Cobs 10-12 rowed. Seeds slightly dented, red. Local name Maiz chapalote. Landrace. Seed.
476872. Z15-003. Mexico. Farm, Rio Verde watershed, Baborigame,

476866 TO 476872-continued

Chihuahua. 2000m. Collected by E. Faubert. Grown by the northern Tepehuan Indians of the Sierra Madre. Cobs 12-14 rowed. Seeds flint yellow and flour red. Landrace. Seed.

476873. *Zea mays* L. (Poaceae) Sweet corn.

From United States. Donated by Gary Nabhan; Meals for Millions/Freedom from Hunger Foundation; Tucson, Arizona.  
Received February 1983.

Z07-004. United States. Farm, Keams Canyon, Hopi Indian Reservation, Arizona. 1700m. Rare 12-rowed sweet corn originally from a Bantam-like type. Grown by Hopi Indians for over 70 years. Seeds dry-roasted in earthen pit oven and rehydrated at time of use. Some contamination of blue and white floury seeds. Local name Tawaktci. Landrace. Seed.

476874. *Aegilops tauschii* Coss. (Poaceae).

From United States. Donated by R. J. Metzger; USDA, Field Crops Breeding & Production Research Unit, Dept. of Crop Science, Oregon State Univ.; Corvallis. Code numbers refer to Japanese Wheat Information Service (WIS).  
Received November 1980.

WIS 2086. Afghanistan. Originally collected by a Japanese team. Rachis non-brittle. Received as *Aegilops squarrosa*. Wild. Seed.

476875. *Psophocarpus scandens* (Endl.) Verdc. (Fabaceae).

From Indonesia. Donated by Botanic Gardens of Indonesia; Bogor.  
Received February 1982.

IBN-2545. Indonesia. Djakarta. Universitas Gejah Mada Jogjakarta. Originally from Africa. Collected by S.H.A. Lubis. Plants prostrate creeping. Leaflets lobed. Flowers blue. Seeds ovoid. Age to first flowers four months. Disease resistance high. Pest tolerance high. Perennial Herb. Cultivated. Seed.

476876. *Psophocarpus palustris* Desv. (Fabaceae).

From Indonesia. Donated by Botanic Gardens of Indonesia; Bogor.  
Received February 1982.

IBN-424. Indonesia. Collected July 23, 1971. Purwodadi. Collected by Setiyati S. Plants prostrate, creeping.



476876-continued

Leaflets smooth. Flowers blue. Seeds ovoid, grayish-black. Age to first flowers thirteen months. Disease resistance high. Pest tolerance high. Perennial Herb. Cultivated. Seed.

476877. *Vigna radiata* (L.) Wilczek (Fabaceae) Mungbean.

From China, Republic of. Donated by Vegetable Legume Program, The Asian Vegetable Research & Development Center; Shanhua, Tainan, 741. Received February 1983.

VC 1560 D. China, Republic of. BPI. glab. 3//CES 44/ML-3. Resistant to *Cercospora* leafspot and powdery mildew. Breeding Material. Seed.

476878 TO 476933. *Glycine max* (L.) Merr. (Fabaceae) Soybean.

From Vietnam, Socialist Rep of. Donated by National Institute for Agricultural Science; Ho Chi Minh City (Saigon). Received through J. A. Jackobs, Dept. of Agronomy, Univ. of Illinois, Urbana, IL. Received September 1982.

476878. A. 9. Vietnam, Socialist Rep of. Cultivated. Seed.

476879. Bach Hoa Thao Moc-Chau. Vietnam, Socialist Rep of. Cultivated. Seed.

476880. Ban-Doc. Vietnam, Socialist Rep of. Cultivated. Seed.

476881. Bathang Ronnau. Vietnam, Socialist Rep of. Cultivated. Seed.

476882. Ba-Vi. Vietnam, Socialist Rep of. Cultivated. Seed.

476883. Can Tho 2. Vietnam, Socialist Rep of. Cultivated. Seed.

476884. Chi Thao Long Trang. Vietnam, Socialist Rep of. Cultivated. Seed.

476885. Chi Thao Matnau. Vietnam, Socialist Rep of. Cultivated. Seed.

476886. Coc Chum. Vietnam, Socialist Rep of. Cultivated. Seed.

476887. Cuc Tuyen. Vietnam, Socialist Rep of. Cultivated. Seed.

476888. Dau Ban-thang. Vietnam, Socialist Rep of. Cultivated. Seed.

476878 TO 476933-continued

476889. Den Bac Ha. Vietnam, Socialist Rep of. Cultivated. Seed.
476890. Den Cao Bang. Vietnam, Socialist Rep of. Cultivated. Seed.
476891. Den Nguyen Duong. Vietnam, Socialist Rep of. Cultivated. Seed.
476892. Den Van-guan. Vietnam, Socialist Rep of. Cultivated. Seed.
476893. DH4. Vietnam, Socialist Rep of. Cultivated. Seed.
476894. D.T. 1. Vietnam, Socialist Rep of. Cultivated. Seed.
476895. Hatto Hai Vu May Den. Vietnam, Socialist Rep of. Cultivated. Seed.
476896. Hatto Hai Vu May Nau. Vietnam, Socialist Rep of. Cultivated. Seed.
476897. Hoa-an. Vietnam, Socialist Rep of. Cultivated. Seed.
476898. Hoang Giang-Dai-dau. Vietnam, Socialist Rep of. Cultivated. Seed.
476899. Hoang Mao. Vietnam, Socialist Rep of. Cultivated. Seed.
476900. Hoa-tuyen. Vietnam, Socialist Rep of. Cultivated. Seed.
476901. Moqua Kien-thuy Mat-den. Vietnam, Socialist Rep of. Cultivated. Seed.
476902. M.T.D. 10. Vietnam, Socialist Rep of. Cultivated. Seed.
476903. My Hung. Vietnam, Socialist Rep of. Cultivated. Seed.
476904. Nau Cao-bang. Vietnam, Socialist Rep of. Cultivated. Seed.
476905. Nguu Mao Hong. Vietnam, Socialist Rep of. Cultivated. Seed.
476906. Palmetto. Vietnam, Socialist Rep of. Cultivated. Seed.
476907. Qui-hop. Vietnam, Socialist Rep of. Cultivated. Seed.
476908. SO 82. Vietnam, Socialist Rep of. Cultivated. Seed.
476909. Song Boi. Vietnam, Socialist Rep of. Cultivated. Seed.
476910. Thai Cao. Vietnam, Socialist Rep of. Cultivated. Seed.

476878 TO 476933-continued

- 476911. Thang Chap. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476912. Tho Xuan. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476913. Thua Pet. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476914. Thuong Pham. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476915. Tra Linh. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476916. Trung Quoc. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476917. Trung Quoc Mat-den. Vietnam, Socialist Rep of.  
Cultivated. Seed.
- 476918. Trung Quoc Xanh a. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476919. Tung Nghia 1. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476920. Tung Nghia 2. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476921. Tuqui Xanh a. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476922. Tuqui Xanh b. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476923. V. 70. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476924. Vang 94. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476925. Vang Moc-chau. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476926. Vang Moc Ron Nau. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476927. Vang Muong Khuong. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476928. Vang Phu Nhung. Vietnam, Socialist Rep of. Cultivated.  
Seed.
- 476929. Van Kieu. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476930. Xanh Bac Ha. Vietnam, Socialist Rep of. Cultivated. Seed.
- 476931. Xanh Ha Bac. Vietnam, Socialist Rep of. Cultivated. Seed.

476878 TO 476933-continued

476932. Xanh Tien Dai. Vietnam, Socialist Rep of. Cultivated. Seed.

476933. Xanh Xuan Mai. Vietnam, Socialist Rep of. Cultivated. Seed.

476934 TO 476936. Glycine max (L.) Merr. (Fabaceae) Soybean.

From Vietnam, Socialist Rep of. Donated by Station for the Improvement of Degraded Soil; Ha Bac Province, Viet Yen District. Received through J. A. Jackobs, Dept. of Agronomy, Univ. of Illinois, Urbana, IL. Received September 1982.

476934. Chi Thao. Vietnam, Socialist Rep of. North, 80km of Hanoi. Cultivated. Seed.

476935. Nam Vang. Vietnam, Socialist Rep of. South Vietnam. Local type. Cultivated. Seed.

476936. Xanh Cao Bang. Vietnam, Socialist Rep of. North, 80km of Hanoi. Cultivated. Seed.

476937 TO 476941. Glycine max (L.) Merr. (Fabaceae) Soybean.

From Vietnam, Socialist Rep of. Donated by Central Seed Agency; Hanoi. Received through J. A. Jackobs, Dept. of Agronomy, Univ. of Illinois, Urbana, IL. Received September 1982.

476937. Coc Chun. Vietnam, Socialist Rep of. Cultivated. Seed.

476938. Cuc. Vietnam, Socialist Rep of. A commonly grown, early-maturity, northern type. Cultivated. Seed.

476939. Den Ha Bac. Vietnam, Socialist Rep of. Cultivated. Seed.

476940. DT 74. China, Peoples Repub of. South China. Cultivated. Seed.

476941. DT 76. China, Peoples Repub of. South China. Also known as DH4. Cultivated. Seed.

476942 TO 476943. Glycine max (L.) Merr. (Fabaceae) Soybean.

From Vietnam, Socialist Rep of. Donated by Cooperative Farm; Phuc Tho District. Received through J. A. Jackobs, Dept. of Agronomy, Univ. of Illinois, Urbana, IL. Received September 1982.

476942 TO 476943-continued

476942. Cuc. Vietnam, Socialist Rep of. West, 40km of Hanoi.  
Cultivated. Seed.

476943. DT 74. Vietnam, Socialist Rep of. West, 40km of Hanoi.  
Cultivated. Seed.

476944. *Gossypium barbadense* L. (Malvaceae) Sea-island cotton.

From Brazil. Collected by M.J. Lukefahr; Empresa Brasileira de  
Pesquisa Agropecuaria, FAO-UN; Campina Grande, Paraiba.  
Received February 1983.

Brazil. Marro Redondo, Bahia. Seed.

476945 TO 476963. *Gossypium hirsutum* L. (Malvaceae) Upland cotton.

From Brazil. Collected by M.J. Lukefahr; Empresa Brasileira de  
Pesquisa Agropecuaria, FAO-UN; Campina Grande, Paraiba.  
Received February 1983.

476945. Brazil. Dooryard, Caico, Rio Grande Norte. Cultivated.  
Seed.

476946. Brazil. Roadside, Caico, Rio Grande Norte. Wild. Seed.

476947. Brazil. Roadside, Caico, Rio Grande Norte. Wild. Seed.

476948. Brazil. Dooryard, Alagoa Grande, Paraiba. Cultivated.  
Seed.

476949. Brazil. Dooryard, Vertentes, Pernambuco. Cultivated.  
Seed.

476950. Brazil. Roadside, Joao Pessoa, Paraiba. Wild. Seed.

476951. Brazil. Roadside, Joao Pessoa, Paraiba. Wild. Seed.

476952. Brazil. Roadside, Joao Pessoa, Paraiba. Wild. Seed.

476953. Brazil. Roadside, Joao Pessoa, Paraiba. Wild. Seed.

476954. Brazil. Roadside, Quemado, Paraiba. Wild. Seed.

476955. Brazil. Roadside, Quemado, Paraiba. Wild. Seed.

476956. Brazil. Roadside, Quemado, Paraiba. Wild. Seed.

476957. Brazil. Roadside, Quemado, Paraiba. Wild. Seed.

476958. Brazil. Roadside, Quemado, Paraiba. Wild. Seed.

476945 TO 476963-continued

- 476959. Brazil. Edge of Dam, Boquievon, Paraiba. Wild. Seed.
- 476960. Brazil. Ievramento, Bahia. Seed.
- 476961. Brazil. Roadside, Taquaritinga, Pernambuco. Wild. Seed.
- 476962. Brazil. Dooryard, Monte Allegro, Paraiba. Cultivated. Seed.
- 476963. Brazil. Dooryard, Monte Allegro, Paraiba. Cultivated. Seed.

476964 TO 476967. *Gossypium hirsutum* L. (Malvaceae) Upland cotton.

From Brazil. Collected by J.C. Viglioni Penna; Administacao Regional de Uberaba, Emprera Brasileira de Pesquisa Agropecuaria; Uberaba, Minas Gerais. Received February 1983.

- 476964. 195-A. 152-A. Soviet Union. Seed.
- 476965. 201-A. C-4772. Soviet Union. Seed.
- 476966. 210-A. 4959. Bulgaria. Seed.
- 476967. 218-A. Albar 627. Zambia. Seed.

476968 TO 476973. *Cynodon plectostachyus* (K. Schum.) Pilg. (Poaceae) Stargrass.

From Kenya. Donated by Kitale Experiment Station; Kitale. Received May 1978.

- 476968. Kenya. Sabawani farm near Kitale. Seed.
- 476969. Kenya. Sabawani farm near Kitale. Seed.
- 476970. Kenya. Hoey's Bridge. Seed.
- 476971. South Africa. Seed.
- 476972. Kenya. Kitale. Seed.
- 476973. Kenya. Embu. Seed.

476974 TO 476975. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by J. W. Schmidt; Department of Agronomy, University of Nebraska; Lincoln, Nebraska.

476974 TO 476975-continued  
Received March 1983.

476974. NE77682. 'Centura'. United States. Warrior \*5/Agent/  
/NE68457/3/Centurk 78. Joint release of the Nebraska  
Agricultural Experiment Station & the North Central  
Region, ARS, U.S. Dept. of Agriculture. Hard red type.  
Appearance similar to Centurk 78. Heads square, awned,  
glumes white. Straw strength similar to Centurk 78.  
Maturity between Scout 66 and Centurk 78. Intermediate  
field reaction to mildew, soilborne mosaic and wheat  
streak viruses, stem rust and Hessian fly. LR24-SR24 rust  
resistant genes. Bread baking qualities similar to  
Centurk 78, but higher in flour yield. Winter Annual.  
Cultivar. Seed.

476975. NE78696. 'Colt'. United States. Agate Sib(NE69441)/391-  
56-DB/Kaw (Tx65A1503-1). Joint release of the Nebraska  
Agricultural Experiment Station and the North Central  
Region, ARS, U.S. Dept. of Agriculture. Hard red type.  
Semi-dwarf, awned, white glumed. Superior to Vona in  
winterhardiness, bushel weight, kernel weight and protein  
content. Maturity slightly later than Centurk 78,  
midseason. Intermediate reaction to mildew, soilborne  
mosaic and stem rust. Susceptible to wheat streak mosaic  
virus. Low leaf rust readings. Bread baking qualities  
similar to Scout 66. Winter Annual. Cultivar. Seed.

476976. *Hordeum vulgare* L. (Poaceae) Barley.

From United States. Donated by D. C. Rasmussen; Department of  
Agronomy and Plant Genetics, Agricultural Experiment  
Station, University of Minnesota; St. Paul, Minnesota.  
Received March 1983.

'Robust'. United States. 'Morex'/'Manker'. Six rowed,  
smooth-awned spring type. Maturity medium-late. Plants  
mid-tall, moderately strong straw. Seeds covered, medium-  
large. Superior to Morex in grain yield, kernel plumpness  
and lodging resistance. Satisfactory for malting and  
brewing. Resistant to stem rust and spot blotch.  
Susceptible to loose smut. Cultivar. Seed.

476977 TO 476978. *Arachis hypogaea* L. (Fabaceae) Peanut.

From United States. Donated by Texas Agricultural Experiment  
Station, Texas A&M University; Stephenville, Texas.  
Received March 1983.

476977. MI-57. Mexico. Mountainous region. Seed.

476978. MI-68. Mexico. Mountainous region. Seed.

**476979. *Lespedeza cuneata* (Dum.) G. Don (Fabaceae) *Sericea lespedeza*.**

From United States. Donated by Americus Plant Materials Center, Soil Conservation Service, USDA; Americus, Georgia. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 7174. 'Arlington'. United States. Collected 1930. Arlington farm, Virginia. Released in 1939. Plants vigorous, leafy, high in tannin. Used for wildlife forage, and stabilization. Perennial Herb. Cultivated. Seed.

**476980 TO 476981. *Bouteloua curtipendula* (Michx.) Torr. (Poaceae) Side-oats grama.**

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

476980. T 5704. 'Pierre'. United States. Collected 1954. Pierre, Stanley County, South Dakota. Informal release. Collected by Doll and Dykesterhuis. Composite of several vigorous plants at collection site. Outstanding vigor, leafiness, and freedom from disease. Compares well with other accessions in forage and seed production. Adapted best to western South Dakota and adjoining states. Perennial Herb. Cultivar. Seed.

476981. T 5703. United States. Collected 1956. Dunn County, North Dakota. Collected by J. McDermid. One of two accessions bulked to form 'Killdeer'. Undergoing advanced evaluation for surface mine reclamation and forage production. Perennial Herb. Cultivated. Seed.

**476982. *Celtis occidentalis* L. (Ulmaceae).**

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 5725. 'Oahe'. Collected 1937. Gettysburg, South Dakota. Recommended for farmstead and field windbreaks, wildlife habitats, and natural area plantings. Selected for rate of growth and crown form. Tree. Cultivar. Seed.



476983. *Stipa viridula* Trin. (Poaceae) Green needlegrass.

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 11998. 'Green Stipa'. United States. Collected 1935. Mandan, North Dakota. Released in 1946. Superior to common green needlegrass in forage and seed yields and in seedling and regrowth characteristics. Perennial Herb. Cultivar. Seed.

476984. *Panicum texanum* Buckl. (Poaceae).

From United States. Donated by Brooksville Plant Materials Center, Soil Conservation Service, USDA; Brooksville, Florida. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 3367. 'Artex'. United States. Collected 1958. Blountstown, Florida. Collected by W.C. Garrett. Adaptable to a wide variety of soils, but grows best on deep, moist soils. Heavier forage production than browntop millet, less than pearl millet. Used for game-bird food and hay. Perennial Herb. Cultivar. Seed.

476985. *Lespedeza thunbergii* (DC.) Nakai (Fabaceae).

From United States. Donated by Cape May Plant Materials Center, Soil Conservation Service, USDA; Cape May Courthouse, New Jersey. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 5020. 'Va-70'. China, Peoples Repub of. South Manchuria. Forestry Dept., Yugakujo Experiment Station. Selection from PI 90664. Collected 1930. Hsiungyaocheng, Yugakujo. Herbaceous with semi-woody stems. Plants erect, stems to 2m tall. Seeds black, mature Sept. to Oct. from Virginia and New Jersey. Seeds shatter after maturity. Used for wildlife food, cover, erosion control and ornamental. Perennial Woody. Cultivar. Seed.

476986. *Elaeagnus umbellata* Thunb. (Elaeagnaceae) Autumn elaeagnus.

From United States. Donated by Elsberry Plant Materials Center, Soil Conservation Service, USDA; Elsberry, Missouri. Received through National Plant Materials Center, SCS,

476986-continued

Beltsville, MD.

Received February 1983.

T 5164. 'Elsberry'. Southeast Asia. Released in 1979. Maturity earlier, leaves larger and darker green, fruit sweeter, and more cold tolerant than 'Cardinal'. Used for windbreaks, cover, food, ornamental. Perennial Woody. Cultivar. Plants.

476987. *Bothriochloa ischaemum* (L.) Keng var. *ischaemum* (Poaceae)  
Yellow bluestem.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas.

Received through National Plant Materials Center, SCS, Beltsville, MD.

Received February 1983.

T 16699. 'King Ranch'. United States. Collected 1937. King Ranch, Texas. Adapted best to clay or rocky limestone. Volunteers aggressively. Drought tolerant. Winter hardy. Grazed readily by cattle and sheep. Perennial Herb. Cultivar. Seed.

476988. *Buchloe dactyloides* (Nutt.) Engelm. (Poaceae) Buffalograss.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas.

Received through National Plant Materials Center, SCS, Beltsville, MD.

Received February 1983.

T 2941. 'Texoka'. United States. Released in 1974. Hybrid from material from Texas and Oklahoma. Tall, very productive strain adapted to the High Plains. Good vegetative growth, above average seed yield from high percentage of female plants. Perennial Herb. Cultivar. Seed.

476989. *Cenchrus ciliaris* L. (Poaceae) Buffelgrass.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas.

Received through National Plant Materials Center, SCS, Beltsville, MD.

Received February 1983.

T 3267. 'Nueces'. United States. Released in 1977. Hybrid from material from South Africa. Superior forage production and higher digestibility than T-4465 and

476989-continued

Higgins. Cold tolerant. Perennial Herb. Cultivar. Seed.

476990. *Andropogon hallii* Hack. (Poaceae) Sand bluestem.

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 4466. 'Elida'. United States. Collected 1956. Sand dune, Elida, New Mexico. 1450m. Released in 1963. Superior establishment, vigor and production in eastern New Mexico. Good foliage, uniform ripening, better seed production than others tested. Perennial Herb. Cultivar. Seed.

476991. *Bouteloua curtipendula* (Michx.) Torr. (Poaceae) Side-oats grama.

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 4498. 'Vaughn'. United States. Collected 1935. Vaughn, New Mexico. Released in 1940. More drought tolerant than 'El Reno', 'Uvalde', or 'Tucson' in eastern Colorado and New Mexico. Easily established, erect leaf type, good seedling vigor. Perennial Herb. Cultivar. Seed.

476992. *Bouteloua eriopoda* (Torr.) Torr. (Poaceae) Black grama.

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 4499. 'Nogal'. United States. Collected 1957. Socorra, New Mexico. 1450m. Released in 1971. Produced more forage than most strains. Less erect than 'Sonora'. Yield high. Perennial Herb. Cultivar. Seed.

476993. *Bouteloua gracilis* (Willd. ex H.B.K.) Lag. ex Griffiths (Poaceae) Blue grama.

From United States. Donated by Los Lunas Plant Materials Center,

**476993-continued**

Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received February 1983.

T 4506. 'Lovington'. United States. Collected 1944.  
Lovington, New Mexico. 1300m. Released in 1963. Good  
leafiness, excellent vigor, rapid establishment. Adapted  
over wide geographic area of southwest. Perennial Herb.  
Cultivar. Seed.

**476994. *Dactylis glomerata* L. (Poaceae) Orchardgrass.**

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received February 1983.

T 16776. 'Sandia'. German Democratic Repub. Selection  
from 'Brage'. Released in 1953. Large, robust. Grows well  
with alfalfa. Good seed producer. Resistant to rust.  
Perennial Herb. Cultivar. Seed.

**476995. *Hilaria jamesii* (Torr.) Benth. (Poaceae).**

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received February 1983.

T 4583. 'Viva'. United States. Collected 1944. Newkirk,  
New Mexico. Superior in seedling vigor, forage production  
and seed production. Perennial Herb. Cultivar. Seed.

**476996. *Muhlenbergia wrightii* Vasey (Poaceae) Spike Muhly.**

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received February 1983.

T 4708. 'El Vado'. United States. Collected October 09,  
1958. Cracks of exposed sandstone, Park View, New Mexico.  
Released in 1973. Growth more upright, basal leaves wider  
than others tested. Superior in seed yield, vigor and  
establishment in New Mexico and Colorado. Selected for  
soil stabilization, range revegetation and palatability.

476996-continued

Resistant to wheat curl mite. Perennial Herb. Cultivar.  
Seed.

476997. *Oryzopsis hymenoides* (Roem. & Schult.) Ricker (Poaceae).

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received February 1983.

T 4607. 'Paloma'. United States. Collected July 1957.  
Pueblo, Colorado. 1600m. Released in 1974. Useful for  
dryland soil stabilization, revegetation of surface mined  
land, and forage. Superior to 33 accessions in seed and  
forage production, establishment and vigor in New Mexico,  
Arizona and Colorado. Drought tolerant. Perennial Herb.  
Cultivar. Seed.

476998. *Schizachyrium scoparium* (Michx.) Nash (Poaceae) Little  
bluestem.

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received February 1983.

T 4718. 'Pastura'. United States. Collected 1957. Near  
Rowe and Pecos, New Mexico. 2200m. Growth uniform, green.  
Seedling vigor excellent. Seed production high and easier  
to process than most strains. Resistant to climatic  
adversities. Perennial Herb. Cultivar. Seed.

476999. *Sorghastrum nutans* (L.) Nash (Poaceae) Indiangrass.

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received February 1983.

T 4719. 'Llano'. United States. Collected 1956. Sandy  
plains, near Hudson and Portales in eastern New Mexico.  
1200m. Released in 1963. Adapted to southwestern Great  
Plains with low, erratic rainfall. Produces good yields  
of high quality seed. Perennial Herb. Cultivar. Seed.

**477000. *Yucca elata* Engelman (Agavaceae) Soap tree yucca.**

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 4724. 'Bonita'. United States. Collected February 1966. Gage, New Mexico. Released in 1978. Ornamental. Minimum maintenance requirements. Adapted north to Brighton, Colorado. Cold and drought tolerant. Perennial Woody. Cultivar. Seed.

**477001 TO 477002. *Bouteloua curtipendula* (Michx.) Torr. (Poaceae) Side-oats grama.**

From United States. Donated by Manhattan Plant Materials Center, Soil Conservation Service, USDA; Manhattan, Kansas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

477001. T 4243. 'Trailway'. United States. Selection and recombination within naturally occurring hybrid population. Collected 1935. Holt County, Nebraska. Collected by L.C. Newell. Released in 1958. Maturity late. Winter hardiness of northern origin and vegetative characteristics of southern strains. Long-lived. Resistant to rust. Perennial Herb. Cultivar. Seed.

477002. T 4244. 'Butte'. United States. Holt County and Platte County, Nebraska. Released in 1958. Composite of two high-yielding strains. Maturity early. Seedling vigor excellent. Seed crop excellent. More winter hardy in Nebraska than all cultivars except 'Trailway'. Perennial Herb. Cultivar. Seed.

**477003. *Panicum virgatum* L. (Poaceae) Switchgrass.**

From United States. Donated by Manhattan Plant Materials Center, Soil Conservation Service, USDA; Manhattan, Kansas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 2193. 'Nebraska 28'. United States. Collected 1935. Holt County, Nebraska. Released in 1979. Nebraska sandhill type. Maturity early. Well-adapted to diverse soils. Susceptible to rust in areas with longer season than Nebraska. Used for forage and stabilization. Perennial Herb. Cultivar. Seed.

477004. *Cynodon dactylon* (L.) Pers. (Poaceae) Bermudagrass.

From United States. Donated by National Plant Materials Center, Soil Conservation Service, USDA; Beltsville, Maryland. Received February 1983.

T 19943. 'Tufcote'. South Africa. Released in 1967. Only plant tested that survived -17 deg. F temperature. Medium texture, medium dark green, low growth habit. Fair to good tolerance to heavy traffic. Some tolerance to leaf diseases, remains green longer in fall than common strains. Perennial Herb. Cultivar. Plants.

477005. *Poa canbyi* (Scribn.) Piper (Poaceae) Canby bluegrass.

From United States. Donated by Pullman Plant Materials Center, Soil Conservation Service, USDA; Pullman, Washington. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 3028. 'Canbar'. United States. Blue Mountain, Washington. Released in 1979. Maturity mid-June. Abundant basal leaves and seedheads. Used for understory in range. Perennial Herb. Cultivar. Seed.

477006. *Sorghastrum nutans* (L.) Nash (Poaceae) Indiangrass.

From United States. Donated by Quicksand Plant Materials Center, Soil Conservation Service, USDA; Quicksand, Kentucky. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 2936. Collected October 1966. East, 1.6km of Arlington, Virginia. Collected by P. Trew. Plants 1.6m tall, leafy. Warm season forage. Perennial Herb. Wild. Seed.

477007. *Calamovilfa longifolia* (Hook.) Scribn. (Poaceae) Prairie sandreed.

From United States. Donated by Rose Lake Plant Materials Center, Soil Conservation Service, USDA; East Lansing, Michigan. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 4936. United States. Collected 1971. Manistee, Michigan. Selected over 'Goshen' and ND-95 for its vigorous growth, more leafy foliage and later maturing

477007-continued

seed heads. Perennial Herb. Wild. Seed.

477008. *Elaeagnus umbellata* Thunb. (Elaeagnaceae) Autumn elaeagnus.

From United States. Donated by Rose Lake Plant Materials Center, Soil Conservation Service, USDA; East Lansing, Michigan. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 4976. United States. Collected 1961. Rose Lake, Michigan. Maturity 20 days earlier than 'Cardinal' and 'Elsberry'. Leaves large, dark green. Fruit large, sweet. Perennial Woody. Wild. Seed.

477009. *Lathyrus latifolius* L. (Fabaceae) Perennial peavine.

From United States. Donated by Rose Lake Plant Materials Center, Soil Conservation Service, USDA; East Lansing, Michigan. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 5015. United States. Superior in erosion control and beautification. Perennial Herb. Cultivated. Breeding Material. Seed.

477010. *Ligustrum obtusifolium* Sieb. & Zucc. (Oleaceae) Privet.

From United States. Donated by Rose Lake Plant Materials Center, Soil Conservation Service, USDA; East Lansing, Michigan. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 5022. United States. Collected October 31, 1973. Dense, low shrub about as wide as it is high with branches drooping to the ground. For possible use as windbreaks under center pivot irrigation systems. Perennial Woody. Wild. Seed.

477011. *Thuja occidentalis* L. (Cupressaceae) Northern white cedar.

From United States. Donated by Rose Lake Plant Materials Center, Soil Conservation Service, USDA; East Lansing, Michigan. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.



477011-continued

T 5059. United States. Blackduck, Minnesota. Superior growth in Jasper-Pulaski State Nursery, Medaryville, Indiana. Tree. Wild. Seed.

477012. *Eragrostis curvula* (Schrad.) Nees (Poaceae) Weeping lovegrass.

From United States. Donated by Tucson Plant Materials Center, Soil Conservation Service, USDA; Tucson, Arizona. Received through National Plant Materials Center, SCS, Beltsville, MD. Received February 1983.

T 16849. 'A-67'. North Central Tanganyika. Plants vigorous, densely tufted, with extensive root system and long, lax leaves. Plants long-lived. Forage and seed production greater than Boer or Lehmann lovegrass. Cold tolerant. Used for range, pasture and soil protection. Perennial Herb. Cultivar. Seed.

477013. *Gossypium hirsutum* L. (Malvaceae) Upland cotton.

From Afghanistan. Donated by Afghan Seeds Co; Kabul. Received through Food & Agriculture Organization of the United Nations, Rome, Italy. Received April 1983.

Afghanistan. Closed-ball type. Cultivated. Seed.

477014. *Phaseolus vulgaris* L. (Fabaceae) Garden bean.

From India. Donated by Regional Pulse Improvement Project, Agency for International Development & US Dept. of Agriculture; New Delhi. Received March 1983.

65-153-02151. Turkey. Brown seed component from PI 474511. Cultivated. Seed.

477015. *Phaseolus coccineus* L. (Fabaceae) Scarlet runner bean.

From Netherlands. Donated by A.C. Zeven; Institute of Plant Breeding, Agricultural University; Wageningen. Received March 1983.

3.55. Spek Snijboon. Netherlands. Ubachtsberg. Seeds purple-mottled. Cultivated. Seed.

477016 TO 477025. *Phaseolus vulgaris* L. (Fabaceae) Garden bean.

From Netherlands. Donated by A.C. Zeven; Institute of Plant Breeding, Agricultural University; Wageningen.

477016 TO 477025-continued  
Received March 1983.

- 477016. 1.79. Witte boon. Netherlands. Ubachtsberg. Seeds white. Cultivated. Seed.
- 477017. 1.80. Rieser boontje. Netherlands. Eys. Seeds white. Cultivated. Seed.
- 477018. 1.81. Witte stokboon. Netherlands. Nijkerk. Seeds white. Cultivated. Seed.
- 477019. 1.82. Musje eikes (stoksla boon). Netherlands. Eys. Seeds white. Cultivated. Seed.
- 477020. 2.40. Kennemer bruine. Netherlands. Breezand. Seeds brown. Cultivated. Seed.
- 477021. 2.41. Grauwe boon. Netherlands. Breezand. Seeds brown. Cultivated. Seed.
- 477022. 2.42. Bruine boon. Netherlands. Breezand. Seeds brown. Cultivated. Seed.
- 477023. 2.43. Chocolate bruine boon. Netherlands. Breezand. Seeds brown. Cultivated. Seed.
- 477024. 3.54. Rode Krobben. Netherlands. Aalsmeer. Seeds purple-mottled. Cultivated. Seed.
- 477025. 6.08. Wasboon. Netherlands. Ubachtsberg. Seeds black. Cultivated. Seed.

477026 TO 477030. *Eleusine coracana* (L.) Gaertn. (Poaceae) Finger millet.

From India. Donated by National Bureau of Plant Genetic Resources; New Delhi-PIN:110012.  
Received March 1983.

- 477026. HPB 7-6. India. Bangalore, Karnataka. Susceptible to blast, *Pyricularia grisea*. Cultivated. Seed.
- 477027. HR-23A. India. Bangalore, Karnataka. Susceptible to blast, *Pyricularia grisea*. Cultivated. Seed.
- 477028. Indaf-8. India. Bangalore, Karnataka. Susceptible to blast, *Pyricularia grisea*. Cultivated. Seed.
- 477029. Purna. India. Bangalore, Karnataka. Susceptible to blast, *Pyricularia grisea*. Cultivated. Seed.
- 477030. VL-110. India. Bangalore, Karnataka. Susceptible to

477026 TO 477030-continued

blast, *Pyricularia grisea*. Cultivated. Seed.

477031. *Cicer arietinum* L. (Fabaceae) Chickpea.

From India. Donated by Department of Genetics & Plant Breeding,  
Punjab Agricultural University; Ludhiana.

Received April 1983.

G-543. India. C-235/C-168. Released in Punjab in 1977.  
Plants dwarf, highly branched. Adapted to humid  
conditions. Resistant to gram blight, wilt, and foot  
blight. Cultivar. Seed.

477032 TO 477039. *Phaseolus acutifolius* A. Gray (Fabaceae) Tepary bean.

From United States. Collected by Gary Nabhan; Meals for Millions/  
Freedom from Hunger Foundation; Tucson, Arizona.

Received March 1983.

477032. GN 588b. United States. Collected November 18, 1976.  
Megager's Dam, Organ Pipe Nat'l. Monument, Papago Indian  
Reservation, AZ. 360-600m. Seeds light colored. Local  
name paw/tepar. Received as *P. acutifolius* var.  
*latifolius*. Cultivated. Seed.
477033. GN 588c. United States. Collected November 18, 1976.  
Megager's Dam, Organ Pipe Nat'l. Monument, Papago Indian  
Reservation, AZ. 360-600m. Seeds light colored. Local  
name paw/tepar. Received as *P. acutifolius* var.  
*latifolius*. Cultivated. Seed.
477034. GN 741. United States. Collected November 10, 1977. Ali  
Chukson Village, 32km SE of Sells, Papago Indian Res.,  
Pima Co., AZ. 1050-1200m. Plants domesticated. Seeds  
brown-yellow. Local name S'oam paw. Received as *P.*  
*acutifolius* var. *latifolius*. Cultivated. Seed.
477035. GN 742. United States. Collected November 10, 1977. Ali  
Chukson Village, 32km SE of Sells, Papago Indian Res.,  
Pima Co., AZ. 1050-1200m. Plants domesticated. Seeds  
white. Local name S'toti paw. Received as *P. acutifolius*  
var. *latifolius*. Cultivated. Seed.
477036. GN 753. United States. Collected October 27, 1977.  
Kohatk Village, Papago Indian Reservation, Pima Co.,  
Arizona. 360-600m. Plants to 25cm tall, 15-50 pods/plant.  
Seeds brown. Local name S'oam paw. Cultivated. Seed.
477037. GN 756. United States. Collected December 02, 1977. GS  
Oidag/Big Fields, Papago Indian Reservation, Pima Co.,  
Arizona. Lat. 32 deg. N, Long. 112 deg. W. Collected by

477032 TO 477039--continued

Gary Nabhan and W. C. Anson. Seeds brown. Local name S'oam pawi. Received as *P. acutifolius* var. *latifolius*. Cultivated. Seed.

477038. GN 757. United States. Collected December 02, 1977. GS Oidag/Big Fields, Papago Indian Reservation, Pima Co., Arizona. Lat. 32 deg. N, Long. 112 deg. W. Collected by Gary Nabhan and W. C. Anson. Plants domesticated. Seeds white. Local name S'toti pawi. Received as *P. acutifolius* var. *latifolius*. Cultivated. Seed.

477039. GN 781. United States. Collected December 15, 1977. Cochise Co., Arizona. Local name Wild tepary. Received as *P. acutifolius* var. *latifolius*. Cultivated. Seed.

477040. *Phaseolus acutifolius* var. *tenuifolius* A. Gray (Fabaceae).

From United States. Collected by Gary Nabhan; Meals for Millions/Freedom from Hunger Foundation; Tucson, Arizona. Received March 1983.

GN 699. United States. Collected September 03, 1977. Unshaded slope, E. of Sycamore Canyon, near Ruby, Santa Cruz, Co., AZ. 1050-1200m. Wild type vine with narrow leaf. Annual. Wild. Seed.

477041. *Phaseolus lunatus* L. (Fabaceae) Lima bean.

From United States. Collected by Gary Nabhan; Meals for Millions/Freedom from Hunger Foundation; Tucson, Arizona. Received March 1983.

GN 822. United States. Collected February 26, 1978. Hopi Village, lower Moenkopi, N Arizona. Lat. 36 deg. N, Long. 110 deg. W. Plants grown without irrigation. Resistant to nematodes. Cultivated. Seed.

477042 TO 477043. *Adesmia bicolor* (Poir.) DC. (Fabaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo. Received October 1982.

477042. 2282. Uruguay. Collected December 20, 1979. Sandy, rocky soil, near Route 26, SW of Paso Aguiar, Cerro Largo Department. Lat. 32 deg. 15' S, Long 55 deg. W. Collected by B. Rosengurtt and A. Vidal. Wild. Seed.

477043. 2316. Uruguay. Collected December 27, 1979. Next to

477042 TO 477043-continued

Route Interbalnearia, Solimar, Canelones Department. Lat. 34 deg. 50' S, Long. 55 deg. 50' W. Collected by R. Brescia and E. Marchesi. Wild. Seed.

477044. *Agropyron scabrifolium* (Doell) Parodi (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

2176. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Humid site, southern Uruguay. Seed.

477045. *Agrostis hygrometrica* Nees (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

2242. Uruguay. Collected November 21, 1979. Small stream, Yaguary, Picada Coelho, Tacuarembó Department. Lat. 32 deg. S, Long. 55 deg. 20' W. Low field, leached soil. Wild. Seed.

477046 TO 477047. *Axonopus argentinus* Parodi (Poaceae) Carpetgrass.

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

477046. 2284. Uruguay. Collected December 20, 1979. Sandy soil, Rte. 26, Arrarte, Banado Medina, Cerro Largo Department. Lat. 32 deg. 20' S, Long. 54 deg. 30' W. Wild. Seed.

477047. 2284-a. Uruguay. Collected December 20, 1979. Sandy soil, Rte. 26, Los Horcones de Arrarte, El Sauce, Cerro Largo Dept. Lat. 32 deg. 20' S, Long. 55 deg. W. Collected by B. Rosengurtt and A. Vidal. Wild. Seed.

477048. *Axonopus barbigerus* (Kunth) Hitchc. (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

**477048-continued**

2489. Uruguay. Collected March 19, 1981. Sandy soil, Rte. 30, km 110.5, Bajada de Penas, Tranqueras, Rivera Dept. Lat. 31 deg. S, Long. 55 deg. 55' W. Wild. Seed.

**477049 TO 477050. Axonopus suffultus (Mikan) Parodi (Poaceae)  
Carpetgrass.**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

477049. 2012. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Sand dune, edge of Plata river, Colonia Wilson, San Jose Department. Lat. 34 deg. 50' S, Long. 56 deg. 30' W. Seed.

477050. 2074. Uruguay. Collected January 18, 1980. Dry, sandy soil, edge of Plata river, Punta Espinillo, Montevideo Dept. Lat. 34 deg. 55' S, Long. 56 deg. 25' W. Wild. Seed.

**477051. Bothriochloa brasiliensis (Hack.) Henrard (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

2190. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Calcareous soil. Seed.

**477052. Bouteloua megapotamica (Spreng.) Kuntze (Poaceae) Grama grass.**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

2749. Uruguay. Collected December 09, 1980. Fertile, virgin field, Cangue, Paysandu Department. Lat. 32 deg. 20' S, Long. 58 deg. W. Wild. Seed.

**477053 TO 477055. Bromus auleticus Trin. ex Nees (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

477053. 2294-b. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Leaves glabrous. Seed.

**477053 TO 477055-continued**

**477054. 2424. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Sandy soil near small stream, Mauricio, San Jose Department. Lat. 34 deg. 40' S, Long. 56 deg. 40' W. Plants growing in grove of trees. Seed.**

**477055. 2778. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Virgin, sandy soil, Route 3, south of Arape River, Salta Department. Lat. 31 deg. S, Long. 57 deg. 50' W. Seed.**

**477056. Bromus brachyanthera Doell (Poaceae).**

**From Uruguay. Donated by B. Rosengurt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.**

**2568. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Low shaded forest. Seed.**

**477057. Bromus unioloides H.B.K. (Poaceae) Rescuegrass.**

**From Uruguay. Donated by B. Rosengurt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.**

**2272. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Low field, edge of Santa Lucia river, Arequita, Lavelleja Department. Lat. 34 deg. 20' S, Long. 55 deg. 20' W. Received as Bromus catharticus. Seed.**

**477058 TO 477059. Calamagrostis alba (Presl) Steudl (Poaceae).**

**From Uruguay. Donated by B. Rosengurt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.**

**477058. 2586. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Seed.**

**477059. 2662. Uruguay. Collected November 27, 1980. Sandy field, Route 26, km 221, Tacuarembó Department. Lat. 31 deg. 40' S, Long. 56 deg. W. Plants native. Wild. Seed.**

477060 TO 477061. *Calamagrostis montevidensis* Nees (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.

Received October 1982.

477060. C-23. Uruguay. Collected December 19, 1980. Virgin  
field, Banado Medina, Cerro Largo Department. Lat. 32 deg.  
20' S, Long. 54 deg. 30' W. Wild. Seed.

477061. 2402. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Montevideo Department. Seed.

477062. *Chascolytrum erectum* (Lam.) A.N. Desv. (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.

Received October 1982.

2366. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Rocky field, Route 26, km 70,  
Paysandu Department. Lat. 32 deg. S, Long. 57 deg. 20' W.  
Received as *Chascolytrum macrostachyum*. Seed.

477063. *Chascolytrum lamarckianum* (Nees) Matthei (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.

Received October 1982.

2370. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Sandy field near small stream Tres  
Cruces, Las Magnolias, Tacuarembó Dept. Lat. 31 deg. 40'  
S, Long. 55 deg. 55' W. Wild. Seed.

477064 TO 477065. *Chascolytrum subaristatum* (Lam.) Desv. (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.

Received October 1982.

477064. 2268. Uruguay. Collected November 21, 1979. Fertile  
field, Route 26, Yaguary, Tacuarembó Department. Lat. 32  
deg. S, Long. 55 deg. 20' W. Collected by B. Rosengurtt  
and D. Fornoso. Wild. Seed.

477065. 2350-b. Uruguay. Montevideo. Jardin Botanico de la



477064 TO 477065-continued  
Facultad de Agronomia. Seed.

477066 TO 477067. *Chloris uliginosa* Hack. (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

477066. 2185. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Received as *Eustachys uliginosa*.  
Seed.

477067. C-171. Uruguay. Collected December 19, 1980. Field,  
Route 26, km 34, Arrarte, Cerro Largo Department. Lat. 32  
deg. 20' S, Long. 54 deg. 30' W. Received as *Eustachys*  
*uliginosa*. Wild. Seed.

477068 TO 477069. *Coelorachis selloana* (Hack.) A. Camus (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

477068. C-14. Uruguay. Collected November 18, 1980. Experimental  
Station, Banados de Medina, Cerro Largo Department. Lat.  
32 deg. 20' S, Long. 54 deg. 30' W. Seed.

477069. C-160. Uruguay. Collected November 18, 1980. Heavy soil,  
Experimental Station, Banados de Medina, Cerro Largo  
Department. Lat. 32 deg. 20' S, Long. 54 deg. 30' W.  
Collected by A. Vidal. Seed.

477070. *Desmanthus virgatus* (L.) Willd. (Fabaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2536. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Lat. 34 deg. 55' S, Long. 56 deg.  
10' W. Seed.

477071. *Desmanthus virgatus* var. *depressus* (Humb. & Bonpl. ex Willd.)  
B.L. Turner (Fabaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,

477071-continued

Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2521. Uruguay. Collected March 1981. Sandy fertile soil,  
Experimental Sta., Banados de Medina, Cerro Largo Dept.  
Lat. 32 deg. 20' S, Long. 54 deg. 20' W. Collected by A.  
Vidal. Wild. Seed.

477072 TO 477073. *Desmodium canum* (J. F. Gmel.) Schinz & Thell.  
(Fabaceae) Kaini-clover.

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

477072. 2487-b. Uruguay. Collected March 19, 1981. Route 30, km  
110.5, Bajada de Pena, Rivera Department. Lat. 31 deg.  
05' S, Long. 56 deg. W. Collected by B. Rosengurtt and E.  
Mackinnon. Wild. Seed.

477073. 2496. Uruguay. Collected March 19, 1981. Sandy field,  
Route 5, km 491.5, Rivera Department. Lat. 31 deg. S,  
Long. 55 deg. 40' W. Collected by B. Rosengurtt and E.  
Mackinnon. Wild. Seed.

477074. *Digitaria arechavaletae* Roseng., Arr., & Izag. (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2275. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Lat. 31 deg. 30' S. Norte Uruguayo.  
Seed.

477075. *Digitaria eriostachya* Mez (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2175. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Lat. 31 deg. 30' S. Seed.

**477076. *Digitaria phaeothrix* (Trin.) Parodi (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2267. Uruguay. Collected November 30, 1979. Field edge,  
around Aguas Blancas, Ao Solis de Hataojo, Lavalleja  
Department. Lat. 34 deg. 30' S. Wild. Seed.

**477077. *Digitaria saltensis* Henrard (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2169. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Northern Uruguay. Lat. 31 deg. 30'  
S. Seed.

**477078. *Eleusine tristachya* (Lam.) Lam. (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

C-22. Uruguay. Collected December 19, 1980. Heavy soil,  
Park of Experimental Station, Cerro Largo Department. Lat.  
33 deg. 50' S, Long. 54 deg. 20' W. Seed.

**477079. *Eragrostis bahiensis* Schrad. ex Schult. (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

C-28. Uruguay. Collected January 08, 1980. Experimental  
Station, Banados de Medina, Cerro Largo, Cerro Largo Dept.  
Lat. 33 deg. 50' S, Long. 54 deg. 20' W. Seed.

**477080. *Eragrostis lugens* Nees (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

477080-continued

C-29. Uruguay. Collected November 30, 1979. Park of Experimental Station, Cerro Largo, Cerro Largo Department. Lat. 33 deg. 50' S, Long. 54 deg. 20' W. Seed.

477081. *Eragrostis retinens* Hack. & Arech. (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

C-161. Uruguay. Collected February 20, 1980. Park of Experimental Station, Cerro Largo, Cerro Largo Department. Lat. 33 deg. 50' S, Long. 54 deg. 20' W. Seed.

477082. *Eragrostis virescens* Presl (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

2570. Uruguay. Collected January 09, 1979. Uncultivated trail, Av. Suarez, Prado, Montevideo Department. Lat. 34 deg. 50' S, Long. 56 deg. 20' W. Wild. Seed.

477083. *Holcus lanatus* L. (Poaceae) Velvetgrass.

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

2298. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Southern Uruguay. Seed.

477084. *Leptocoryphium lanatus* (H. B. K.) Nees (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

C-164. Uruguay. Collected December 12, 1980. Heavy soil, east Arrarte, Cerro Largo Department. Lat. 32 deg. 20' S, Long. 54 deg. 30' W. Wild. Seed.

477085 TO 477086. *Melica brasiliana* Ard. (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.

Received October 1982.

477085. 2704. Uruguay. Collected December 03, 1980. Rocky field,  
Paso del Puerto, Soriano Department. Lat. 33 deg. 05' S,  
Long. 57 deg. 05' W. Wild. Seed.

477086. C-63. Uruguay. Collected November 25, 1980. Sandy soil,  
path Cuchilla Grande, Cerro Largo Department. Lat. 32 deg.  
20' S, Long. 55 deg. W. Wild. Seed.

477087. *Melica eremophila* M. A. Torres (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.

Received October 1982.

2405. Uruguay. Collected December 03, 1979. Cerro de  
Montevideo, Montevideo Department. Lat. 34 deg. 55' S,  
Long. 56 deg. 10' W. Wild. Seed.

477088. *Melica hyalina* Doell (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.

Received October 1982.

2040. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Lat. 34 deg. 55' S, Long. 56 deg.  
10' W. Seed.

477089. *Melica macra* Nees (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.

Received October 1982.

C-61. Uruguay. Collected December 05, 1980. Est. Exp. de  
la Facultad de Agronomia, Banados de Medina, Cerro Largo  
Dept. Lat. 32 deg. 20' S, Long. 54 deg. 30' W. Soil sandy.  
Wild. Seed.

**477090. *Melica rigida* Cav. (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

C-60. Uruguay. Collected November 28, 1979. Est. Exp. de Facultad de Agronomia, Banados de Medina, Cerro Largo Dept. Lat. 32 deg. 20' S, Long. 54 deg. 30' W. Soil fertile, sandy. Wild. Seed.

**477091. *Melica sarmentosa* Nees (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

2515. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Lat. 34 deg. 55' S, Long. 56 deg. 10' W. Seed.

**477092. *Ornithopus micranthus* (Benth.) Arech. (Fabaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

2528. Uruguay. Banados Medina, Cerro Largo Department. Jardin Botanico de la Facultad de Agronomia. Lat. 32 deg. 20' S, Long. 54 deg. 30' W. Seed.

**477093. *Panicum glabripes* Doell (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

2265. Uruguay. Collected November 22, 1979. Sandy field next to small ranch, Route 26, Las Toscas, Tacuarembó Dept. Collected by B. Rosengurtt and D. Formoso. Wild. Seed.

**477094. *Panicum milioides* Nees ex Trin. (Poaceae) Panicgrass.**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica;

477094-continued

Montevideo.

Received October 1982.

2777c. Uruguay. Collected December 12, 1980. Fertile area, Route 31, km 65.5, Salto Department. Lat. 31 deg. 20' S, Long. 57 deg. 40' W. Wild. Seed.

477095. *Panicum sabulorum* Lam. (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

C-17. Uruguay. Collected December 05, 1979. Banados de Medina, Cerro Largo Department. Lat. 32 deg. 20' S, Long. 54 deg. 20' W. Wild. Seed.

477096. *Panicum validum* Mez (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

2477. Uruguay. Marshy, wet clay area, next to Rio Uruguay, San Javier, Rio Negro Dept. Lat. 32 deg. 40' S, Long. 58 deg. 5' W. Wild. Seed.

477097 TO 477098. *Pappophorum mucronulatum* Nees (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.

Received October 1982.

477097. 2745. Uruguay. Collected December 10, 1980. Fertile virgin field, Est. Experimental, Paysandu Department. Lat. 32 deg. 20' S, Long. 58 deg. W. Received as *P. subbulbosum*. Wild. Seed.

477098. 2745-b. Uruguay. Collected December 15, 1980. Dry, poor, calcareous soil, Est. Experimental, Paysandu Department. Lat. 32 deg. 20' S, Long. 58 deg. W. Received as *P. subbulbosum*. Wild. Seed.

477099. *Paspalum dilatatum* Poir. (Poaceae) Dallisgrass.

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,

**477099-continued**

Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2180. Uruguay. Collected January 18, 1982. Est.  
Experimental A. Backhaus, Montevideo Department. Wild.  
Seed.

**477100. *Paspalum dilatatum* subsp. *flavescens* Roseng., Arr., & Izag.  
(Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2329. Uruguay. Collected March 17, 1980. Route 8, km  
127.5, Lavalleja Department. Lat. 34 deg. 30' S, Long. 55  
deg. 5' W. Wild. Seed.

**477101. *Paspalum indecorum* Mez (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2163. Uruguay. Montevideo. Jardin Botanico de la  
Facultad de Agronomia. Lat. 34 deg. 55' S, Long. 56 deg.  
10' W. Seed.

**477102. *Paspalum maculosum* Trin. (Poaceae).**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.

2560. Uruguay. Collected March 18, 1981. Route 5, km  
420, south of Manuel Diaz, Tacuarembó Department. Lat. 31  
deg. 30' S, Long. 55 deg. 40' W. Wild. Seed.

**477103. *Paspalum nicorae* Parodi (Poaceae) Brunswickgrass.**

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica,  
Faculty of Agronomia, Universidad de la Republica;  
Montevideo.  
Received October 1982.



477103-continued

2455-b. Uruguay. Collected February 02, 1980. Sandy path, Route Interbalnearia, km 27.5, Canelones Department. Lat. 34 deg. 50' S, Long. 55 deg. 50' W. Wild. Seed.

477104. *Paspalum plicatulum* Michx. (Poaceae) Brownseed paspalum.

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

2339. Uruguay. Montevideo. Jardin Botanico de la Facultad de Agronomia. Leaves hairy, wide. Seed.

477105 TO 477106. *Poa lanigera* Nees (Poaceae).

From Uruguay. Donated by B. Rosengurtt; Laboratorio de Botanica, Faculty of Agronomia, Universidad de la Republica; Montevideo.  
Received October 1982.

477105. 2622. Uruguay. Collected November 23, 1980. Low fertile field, Route 25, km 81, Guichon, Paysandu Department. Lat. 32 deg. 20' S, Long. 57 deg. 15' W. Wild. Seed.

477106. 2646. Uruguay. Collected November 25, 1980. Low fertile field, estancia Rincon de Francia, Young, Rio Negro Department. Lat. 32 deg. 50' S, Long. 57 deg. 30' W. Wild. Seed.

477107. *Agropyron caninum* (L.) Beauv. (Poaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der Universitat des Saarlandes; D-66 Saarbrucken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

623. Germany, Federal Rep of. Cultivated. Seed.

477108. *Alopecurus pratensis* L. (Poaceae) Meadow foxtail.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universitat des Saarlandes; D-66 Saarbrucken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

624. Germany, Federal Rep of. Cultivated. Seed.

477109. *Ammophila arenaria* (L.) Link (Poaceae) European beachgrass.

From Germany, Federal Rep of. Donated by Botanischer Garten der

477109-continued

Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

625. Germany, Federal Rep of. Cultivated. Seed.

477110. *Asparagus verticillatus* L. (Liliaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

507. Germany, Federal Rep of. Cultivated. Seed.

477111. *Atriplex hortensis* L. (Chenopodiaceae) Garden orach.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

291. Germany, Federal Rep of. Cultivated. Seed.

477112. *Atriplex patula* subsp. *hastata* (L.) Hall & Clem. (Chenopodiaceae) Halberdleaf orach.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

290. Germany, Federal Rep of. Received as *Atriplex hastata*. Cultivated. Seed.

477113. *Briza maxima* L. (Poaceae) Big quaking grass.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

633. Germany, Federal Rep of. Cultivated. Seed.

477114. *Briza media* L. (Poaceae) Perennial quaking grass.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code

477114-continued

numbers refer to Index Seminum 1977.  
Received May 1978.

634. Germany, Federal Rep of. Cultivated. Seed.

477115. *Bromus lanceolatus* Roth (Poaceae) Mediterranean bromegrass.

From Germany, Federal Rep of. Donated by Botanischer Garten der  
Universität des Saarlandes; D-66 Saarbrücken. Code  
numbers refer to Index Seminum 1977.  
Received May 1978.

635. Germany, Federal Rep of. Cultivated. Seed.

477116. *Calamagrostis varia* (Schrad.) Host (Poaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der  
Universität des Saarlandes; D-66 Saarbrücken. Code  
numbers refer to Index Seminum 1977.  
Received May 1978.

636. Germany, Federal Rep of. Cultivated. Seed.

477117. *Cenchrus tribuloides* L. (Poaceae) Dune sandbar.

From Germany, Federal Rep of. Donated by Botanischer Garten der  
Universität des Saarlandes; D-66 Saarbrücken. Code  
numbers refer to Index Seminum 1977.  
Received May 1978.

637. Germany, Federal Rep of. Cultivated. Seed.

477118. *Chrysopogon gryllus* (L.) Trin. (Poaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der  
Universität des Saarlandes; D-66 Saarbrücken. Code  
numbers refer to Index Seminum 1977.  
Received May 1978.

639. Germany, Federal Rep of. Cultivated. Seed.

477119. *Cytisus cantabricus* (Willk.) Reichenb. f. (Fabaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der  
Universität des Saarlandes; D-66 Saarbrücken. Code  
numbers refer to Index Seminum 1977.  
Received May 1978.

477119--continued

427. Germany, Federal Rep of. Received as *Sarothamnus cantabricus*. Cultivated. Seed.

477120. *Glycyrrhiza echinata* L. (Fabaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977. Received May 1978.

470. Germany, Federal Rep of. Cultivated. Seed.

477121. *Lolium temulentum* L. (Poaceae) Darnel.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977. Received May 1978.

660. Germany, Federal Rep of. Cultivated. Seed.

477122. *Lupinus polyphyllus* Lindl. (Fabaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977. Received May 1978.

415. Germany, Federal Rep of. Cultivated. Seed.

477123. *Panicum miliaceum* L. (Poaceae) Proso millet.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977. Received May 1978.

668. Germany, Federal Rep of. Cultivated. Seed.

477124. *Phaseolus coccineus* L. (Fabaceae) Scarlet runner bean.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977. Received May 1978.

425. Germany, Federal Rep of. Cultivated. Seed.

477125. *Rhynchosia phaseoloides* (Sw.) DC. (Fabaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der

477125-continued

Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

426. Germany, Federal Rep of. Cultivated. Seed.

477126. *Securigera securidaca* (L.) Deg. & Doerfl. (Fabaceae).

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

429. Germany, Federal Rep of. Received as *Securigera coronilla*. Cultivated. Seed.

477127. *Zea mays* subsp. *mexicana* (Schrad.) Iltis (Poaceae) Teosinte.

From Germany, Federal Rep of. Donated by Botanischer Garten der Universität des Saarlandes; D-66 Saarbrücken. Code numbers refer to Index Seminum 1977.  
Received May 1978.

648. Germany, Federal Rep of. Received as *Euchlaena mexicana*. Cultivated. Seed.

477128 TO 477130. *Psophocarpus palustris* Desv. (Fabaceae).

From United States. Donated by T. Hymowitz; Department of Agronomy, University of Illinois; Urbana, Illinois.  
Received September 1982.

477128. IL 53. United States. Puerto Rico. Mayaguez Institute of Tropical Agriculture. WB-14. Cultivated. Seed.

477129. IL 167. Australia. Asian Vegetable Res. & Development Center, Taiwan. WB 032. Cultivated. Seed.

477130. IL 168. Zaire. Kinshasa. US Agency for International Development. Marsh area, Kinshasa Zone. Cultivated. Seed.

477131 TO 477136. *Psophocarpus scandens* (Endl.) Verdc. (Fabaceae).

From United States. Donated by T. Hymowitz; Department of Agronomy, University of Illinois; Urbana, Illinois.  
Received September 1982.

477131. IL 66. Nigeria. Ibadan. International Institute of Tropical Agriculture. Tpt-7. Collected May 14, 1973.

477131 TO 477136-continued

Nsukka. Collected by Dr. Okigbo. Seeds small, black.  
Cultivated. Seed.

477132. IL 68. Papua New Guinea. International Inst. of Trop. Agri., Ibadan, Nigeria. TPt-10-1. New Guinea bulk. Seeds black and brown. Cultivated. Seed.
477133. IL 69. Indonesia. Bogor. 799(2)B. International Inst. of Trop. Agri., Ibadan, Nigeria. TPt-14. Seeds large, brown. Cultivated. Seed.
477134. IL 70. Indonesia. Bogor. 853(B). International Inst. of Trop. Agri., Ibadan, Nigeria. TPt-15. Seeds large, brown. Cultivated. Seed.
477135. IL 217. Matete. Zaire. Kinshasa. University Campus. Cultivated. Seed.
477136. IL 218. Crenk. Zaire. Kinshasa. University Campus. Cultivated. Seed.

477137 TO 477284. *Psophocarpus tetragonolobus* (L.) DC. (Fabaceae)  
Winged bean.

From United States. Donated by T. Hymowitz; Department of Agronomy, University of Illinois; Urbana, Illinois.  
Received September 1982.

477137. IL 1-C. Ibadan local-1. Nigeria. Ibadan. International Institute of Tropical Agriculture. TPt-1. Collected January 1971. Collected by B.T. Kang, IITA. Pods and seeds large. Cultivated. Seed.
477138. IL 2-C. Ibadan local-2. Nigeria. Ibadan. International Institute of Tropical Agriculture. TPt-2. Pods small. Seeds medium. Cultivated. Seed.
477139. IL 4-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-16. Cultivated. Seed.
477140. IL 5-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-18. Cultivated. Seed.
477141. IL 6-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-29. Cultivated. Seed.
477142. IL 7-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-31. Cultivated. Seed.
477143. IL 8-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-57. Cultivated. Seed.

477137 TO 477284-continued

477144. IL 9-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-65. Cultivated. Seed.
477145. IL 10. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-76. Market. Cultivated. Seed.
477146. IL 11-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-88. Cultivated. Seed.
477147. IL 12. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-105. Cultivated. Seed.
477148. IL 13. Chimbu. Papua New Guinea. Port Moresby. University of Papua New Guinea. Cultivated. Seed.
477149. IL 21. Sri Lanka. Market. Received through National Academy of Science, Washington, D.C. Cultivated. Seed.
477150. IL 22-B. Thailand. Bangkok. Koa Yong Heng Seed House. Cultivated. Seed.
477151. IL 24. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-2. Mt. Hagen, Western Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477152. IL 26-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-32. Western Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477153. IL 27. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-33. Western Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477154. IL 28. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-34. Western Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477155. IL 29. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-38. Western Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477156. IL 30-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-45. Kindeng Chimbu, Chimbu Province. Collected by T.N. Khan. Cultivated. Seed.
477157. IL 31-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-46. Kindeng Chimbu, Chimbu Province. Collected by T.N. Khan. Cultivated. Seed.
477158. IL 32-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-47. Kindeng Chimbu, Chimbu Province. Collected by T.N. Khan. Cultivated. Seed.

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477159. IL 33. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-51. Kindeng Chimbu, Chimbu Province. Collected by T.N. Khan. Cultivated. Seed.
477160. IL 34-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-53. Kindeng Chimbu, Chimbu Province. Collected by T.N. Khan. Cultivated. Seed.
477161. IL 35-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-59. Kindeng-Wabag people, Enga Province. Collected by T.N. Khan. Cultivated. Seed.
477162. IL 36-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-60. Kindeng-Wabag people, Enga Province. Collected by T.N. Khan. Cultivated. Seed.
477163. IL 37-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-61. Kindeng-Wabag people, Enga Province. Collected by T.N. Khan. Cultivated. Seed.
477164. IL 38. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-62. Kindeng-Wabag people, Enga Province. Collected by T.N. Khan. Cultivated. Seed.
477165. IL 39-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-66. Kondepana Chimbu, Chimbu Province. Collected by T.N. Khan. Cultivated. Seed.
477166. IL 40-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-67. Kindeng-Wabag people, Enga Province. Collected by T.N. Khan. Cultivated. Seed.
477167. IL 41-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-71. Kondepana Chimbu, Chimbu Province. Collected by T.N. Khan. Cultivated. Seed.
477168. IL 42-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-78. Kamaliki Goroka, Eastern Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477169. IL 43. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-80. Matuasa, near Goroka, Eastern Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477170. IL 44-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-81. Matuasa, near Goroka, Eastern Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477171. IL 45-A. Papua New Guinea. Port Moresby. University of



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- Papua New Guinea. UPS-89. Matuasa, near Goroka, Eastern Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477172. IL 46. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-99. Near Goroka, Eastern Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477173. IL 47-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-102. Aiyura, Eastern Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477174. IL 48-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-103. Aiyura, Eastern Highlands Province. Collected by T.N. Khan. Cultivated. Seed.
477175. IL 49. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-111. Aiyura, Eastern Highlands Province. Collected by J. Powell. Cultivated. Seed.
477176. IL 50-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-112. Aiyura, Eastern Highlands Province. Collected by J. Powell. Cultivated. Seed.
477177. IL 51-A. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-113. Aiyura, Eastern Highlands Province. Collected by J. Powell. Cultivated. Seed.
477178. IL 52. Papua New Guinea. Port Moresby. University of Papua New Guinea. UPS-115. Aiyura, Eastern Highlands Province. Collected by J. Powell. Cultivated. Seed.
477179. IL 58-B. Ibadan local-3. Nigeria. Ibadan. International Institute of Tropical Agriculture. TPt-3. Seeds small, black. Cultivated. Seed.
477180. IL 60-B. Nigeria. Ibadan. International Institute of Tropical Agriculture. TPt-11. Cultivated. Seed.
477181. IL 61-B. Liberia. International Inst. of Trop. Agri., Ibadan, Nigeria. TPt-12. Suococo. Cultivated. Seed.
477182. IL 62-B. Papua New Guinea. International Inst. of Trop. Agri., Ibadan, Nigeria. TPt-10-2. New Guinea bulk. Seed black and brown. Cultivated. Seed.
477183. IL 65-A. Nigeria. Ibadan. International Institute of Tropical Agriculture. TPt-6. Nsukka. Seeds brown. Cultivated. Seed.
477184. IL 74-A. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. UPS-121. Cultivated. Seed.

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477185. IL 75-A. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. UPS-122. Cultivated. Seed.
477186. IL 76-A. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. Acc. No. 1. Puttalam, Tabbowa. Cultivated. Seed.
477187. IL 77-A. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. Acc. No. 6. Warakapola. Cultivated. Seed.
477188. IL 78. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. Acc. No. 7. Colombo. Cultivated. Seed.
477189. IL 79. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. Acc. No. 8. Karaliyadde. Cultivated. Seed.
477190. IL 80. Philippines. Aborlan, Palawan. Palawan National Agricultural College. PPS-5. Puerto Princesa, Palawan. Cultivated. Seed.
477191. IL 81. Philippines. Aborlan, Palawan. Palawan National Agricultural College. BP-16. Brooke's Point, Palawan. Cultivated. Seed.
477192. IL 97-B. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-93. Cultivated. Seed.
477193. IL 104-B. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-114. Cultivated. Seed.
477194. IL 105. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-4. Cultivated. Seed.
477195. IL 106. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-5. Cultivated. Seed.
477196. IL 107. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-8. Cultivated. Seed.
477197. IL 108. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-11. Cultivated. Seed.
477198. IL 109. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-12. Cultivated. Seed.
477199. IL 110. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-13. Cultivated. Seed.

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- 477200. IL 111. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-19. Cultivated. Seed.
- 477201. IL 112. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-25. Cultivated. Seed.
- 477202. IL 113. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-26. Cultivated. Seed.
- 477203. IL 114. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-27. Cultivated. Seed.
- 477204. IL 115. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-28. Cultivated. Seed.
- 477205. IL 116. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-35. Cultivated. Seed.
- 477206. IL 117. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-36. Cultivated. Seed.
- 477207. IL 118. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-39. Cultivated. Seed.
- 477208. IL 119. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-42. Cultivated. Seed.
- 477209. IL 120. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-56. Cultivated. Seed.
- 477210. IL 121. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-64. Cultivated. Seed.
- 477211. IL 122. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-87. Cultivated. Seed.
- 477212. IL 123. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-92. Cultivated. Seed.
- 477213. IL 124. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-95. Cultivated. Seed.
- 477214. IL 125. Colombia. Cali. Centro Internacional de Agricultura Tropical. UPS-110. Cultivated. Seed.
- 477215. IL 126. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. L.P.W. 1. Galle District, Waragoda. Cultivated. Seed.
- 477216. IL 127. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. L.P.W. 6. Colombo District, Mirigama. Cultivated. Seed.

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477217. IL 128. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. L.P.W. 7. Anuradhapura District, Maha Illuppallama. Cultivated. Seed.
477218. IL 129. Sri Lanka. Gannoruwa, Peradeniya. Central Agricultural Research Institute. L.P.W. 9. Kandy District, Ratemulla. Cultivated. Seed.
477219. IL 130. Ghana. Kade 10/6. Tuber production. Cultivated. Seed.
477220. IL 131. Ghana. Kade 11/6. Seed production. Cultivated. Seed.
477221. IL 132. Ghana. Kade 6/16. Drought tolerant. Cultivated. Seed.
477222. IL 133-A. Pasar Minggu. Indonesia. Yogyakarta. Lembaga Penelitian Hortikultur. University of Gadjah Mada, Yogyakarta. UGM 1. Java. Cultivated. Seed.
477223. IL 134-A. Parmer I. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 15. Palembang, Sumatra. Cultivated. Seed.
477224. IL 135-A. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 17. Purwokerto, Java. Maturity early. Cultivated. Seed.
477225. IL 136. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 18. Purwokerto, Java. Maturity late. Cultivated. Seed.
477226. IL 137-A. Garut I. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 19. Garut, Bandung, Solatan, Java. Cultivated. Seed.
477227. IL 138-A. Bagik Payung Hujan Muda. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 21. Lombok. Cultivated. Seed.
477228. IL 139. E.P.C.M. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 22. Lombok. Cultivated. Seed.
477229. IL 140. F.P.M. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 23. Lombok. Cultivated. Seed.
477230. IL 141-A. Bagik Payung Hitam Bargaris Merah. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 24. Lombok. Cultivated. Seed.
477231. IL 142-A. Bagik Payung Hitam Terang. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 25. Lombok. Cultivated. Seed.

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477232. IL 143. B.P.C.K. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 26. Lombok. Cultivated. Seed.
477233. IL 145. Manado 1. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 59. North Sulawesi. Cultivated. Seed.
477234. IL 146. Kemlagi. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 62. Mojokerto. Cultivated. Seed.
477235. IL 147-A. Gedek. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 63. Mojokerto. Cultivated. Seed.
477236. IL 148-A. Jetis. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 65. Mojokerto, Java. Cultivated. Seed.
477237. IL 149-A. India. New Delhi. National Bureau of Plant Genetic Resources, IARI. I.C. 17004. Manipur. Collected by B. Kalgang. Cultivated. Seed.
477238. IL 150-A. India. New Delhi. National Bureau of Plant Genetic Resources, IARI. I.C. 17005. Makhao Jampak, Manipur. Cultivated. Seed.
477239. IL 151. India. New Delhi. National Bureau of Plant Genetic Resources, IARI. I.C. 17006. Tulaphai, Manipur. Cultivated. Seed.
477240. IL 152. India. New Delhi. National Bureau of Plant Genetic Resources, IARI. I.C. 17017. Pambe Meme, Kerala. Cultivated. Seed.
477241. IL 153. India. New Delhi. National Bureau of Plant Genetic Resources, IARI. I.C. 17018. Vandiparyar, Kerala. Cultivated. Seed.
477242. IL 154. India. New Delhi. National Bureau of Plant Genetic Resources, IARI. I.C. 25087. Mizoram. Cultivated. Seed.
477243. IL 155. Sri Lanka. Gannoruwa. Central Agricultural Research Institute. Acc. No. 2. Jaffna, Tholpuram. Cultivated. Seed.
477244. IL 156. Sri Lanka. Gannoruwa. Central Agricultural Research Institute. Acc. No. 3. Jaffna, Tholpuram. Cultivated. Seed.
477245. IL 157. Sri Lanka. Gannoruwa. Central Agricultural Research Institute. Acc. No. 7. Kegalle, Warakapola. Cultivated. Seed.
477246. IL 158. Sri Lanka. Gannoruwa. Central Agricultural

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- Research Institute. Acc. No. 8. Nuwara Eliya,  
Hanguranketa. Cultivated. Seed.
477247. IL 159. Sri Lanka. Gannoruwa. Central Agricultural  
Research Institute. Acc. No. 11. Kandy, Peradeniya.  
Cultivated. Seed.
477248. IL 160. Sri Lanka. Gannoruwa. Central Agricultural  
Research Institute. Acc. No. 17. Polonnaruwa, Minneriya.  
Cultivated. Seed.
477249. IL 161. Sri Lanka. Gannoruwa. Central Agricultural  
Research Institute. Acc. No. 18. Polonnaruwa, Minneriya.  
Cultivated. Seed.
477250. IL 162. Sri Lanka. Gannoruwa. Central Agricultural  
Research Institute. Acc. No. 20. Kandy, Kandy. Cultivated.  
Seed.
477251. IL 163. Sri Lanka. Gannoruwa. Central Agricultural  
Research Institute. Acc. No. 23. Nuwara Eliya,  
Rikillagaskada. Cultivated. Seed.
477252. IL 164. Sri Lanka. Gannoruwa. Central Agricultural  
Research Institute. Acc. No. 30. Galle, Galle. Cultivated.  
Seed.
477253. IL 165. Philippines. Asian Vegetable Research and  
Development Center. WB 030. E.G. Selection. Cultivated.  
Seed.
477254. IL 166. Bangladesh. Asian Vegetable Res. & Development  
Center, Taiwan . WB 031. Cultivated. Seed.
477255. IL 169. Malaysia. Kuala Lumpur. Rubber Research  
Experiment Station. Local type. Cultivated. Seed.
477256. IL 170. India. New Delhi. National Bureau of Plant  
Genetic Resources, IARI. I.H.R.-2. Kerala. Collected by  
CARE. Cultivated. Seed.
477257. IL 171. India. New Delhi. National Bureau of Plant  
Genetic Resources, IARI. I.H.R.-4. Trivendrum. Collected  
by Kerala Agricultural University personnel. Cultivated.  
Seed.
477258. IL 172. India. New Delhi. National Bureau of Plant  
Genetic Resources, IARI. I.H.R.-9. Trivendrum. Collected  
by T.A. Davis. Cultivated. Seed.
477259. IL 173. Mauritius. Reduit. School of Agriculture,  
University of Mauritius. University Farm, Reduit.  
Cultivated. Seed.

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477260. IL 174. Philippines. Cebu City 6401. World Neighbors. Zamboanga City. Collected by F.V. Rosario. Cultivated. Seed.
477261. IL 190. Philippines. Cebu City 6401. World Neighbors. Negros Oriental Province. Collected by J. Garcia. Cultivated. Seed.
477262. IL 191. Payakumbuh. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 27. West Sumatra. Cultivated. Seed.
477263. IL 192. Suk. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 43. Samarinda, Kalimantan, Borneo. Cultivated. Seed.
477264. IL 193. Iempake. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 45. Kalimantan, Borneo. Cultivated. Seed.
477265. IL 194. Banyuwangi Putih. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 57. Banyuwangi, Java. Cultivated. Seed.
477266. IL 195. 1000. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 71. Lembaga Biologi Nasional, Bogor. Cultivated. Seed.
477267. IL 196. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 75. Lembaga Biologi Nasional, Bogor. LBNC-1. Cultivated. Seed.
477268. IL 197. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 76. Lembaga Biologi Nasional, Bogor. LBNC-2. Cultivated. Seed.
477269. IL 198. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 77. Lembaga Biologi Nasional, Bogor. LBNC-3. Cultivated. Seed.
477270. IL 199. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 78. Lembaga Biologi Nasional, Bogor. LBNC-4. Cultivated. Seed.
477271. IL 200. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 79. Lembaga Biologi Nasional, Bogor. LBNC-5. Cultivated. Seed.
477272. IL 201. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 84. Lembaga Biologi Nasional, Bogor. LBNC-10. Cultivated. Seed.
477273. IL 202. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 87. Lembaga Biologi Nasional, Bogor. LBNC-14.

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Cultivated. Seed.

477274. IL 203. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 88. Lembaga Biologi Nasional, Bogor. LBNC-17. Cultivated. Seed.
477275. IL 204. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 90. Lembaga Biologi Nasional, Bogor. LBNC-19. Cultivated. Seed.
477276. IL 205. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 95. Lembaga Biologi Nasional, Bogor. LBNC-29. Cultivated. Seed.
477277. IL 206. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 96. Lembaga Biologi Nasional, Bogor. LBNC-30. Cultivated. Seed.
477278. IL 207. Ambon. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 100. Moluccas. Cultivated. Seed.
477279. IL 208. Pantul. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 101. Bantul. Cultivated. Seed.
477280. IL 209. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 104. Lembaga Biologi Nasional, Bogor. LBNC-25. Cultivated. Seed.
477281. IL 210. Indonesia. Yogyakarta. University of Gadjah Mada. UGM 106. Lembaga Biologi Nasional, Bogor. LBNC-28. Cultivated. Seed.
477282. IL 214. Indonesia. Truk Agricultural Experiment Station, Micronesia. Possibly from the Philippines by way of New Zealand. Cultivated. Seed.
477283. IL 215. Indonesia. Ponape Agricultural Experiment Station, Micronesia. Possibly from the Philippines by way of New Zealand. Cultivated. Seed.
477284. IL 222. Indonesia. Balinese village. Cultivated. Seed.

477285 TO 477288. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by C. Bruns; North American Plant Breeders; Berthoud, Colorado.  
Received April 1983.

477285. 'Magnum'. United States. Blueboy/W-504//Arthur 71. Soft red awnless type. Maturity early. Plants short, 96.5cm. Straw strong. Spike tapering, middense with awnlets. Glumes medium in length and width. Chaff white. Seeds



477285 TO 477288-continued

ovate with rounded checks and a non-collared brush. Milling and baking quality good. Plants adapted to central and northern soft wheat region. Resistant to leaf and stem rust, Hessian fly. Moderately resistant to powdery mildew, Septoria, soil borne mosaic virus, barley yellow dwarf virus. Rhizoctonia. Winter Annual. Cultivar. Seed.

477286. 'Mustang'. United States. Sonora/Trapper//Warrior/3/II18889/Trapper//C0652643. Maturity early. Plants shorter than the standard varieties. Straw very strong. Spikes tapering, nodding at maturity, rounded shoulder shape and acuminate beak. Chaff white. Awns present. Good Grazing wheat in southern Kansas and Oklahoma. Double cropping potential in Eastern hard wheat areas. Resistant to soil borne mosaic virus. Moderately resistant to leaf and stem rust, wheat streak mosaic virus, Hessian fly. Winter Annual. Cultivar. Seed.

477287. 'Ram'. United States. II18889/Trapper//C052643/3/Baca (Hawk sister line). Maturity medium to late. Plants slightly shorter than standard varieties. Straw very strong. Spikes with tapering to strap head, round shoulder shape and long acuminate beaks. Chaff white. Awns present. Seeds elliptical with midlong brush hairs. Plants adapted to the panhandles of Oklahoma, Texas, Nebraska, western Kansas and eastern Colorado. Resistant to stem rust. Moderately resistant to leaf rust, soil borne mosaic virus, wheat streak mosaic virus. Susceptible to Hessian fly. Winter Annual. Cultivar. Seed.

477288. 'Wrangler'. United States. Sonora/Trapper//Warrior/3/II18889/Trapper//C0652643. Maturity early. Plants shorter than the standard varieties. Straw very strong. Spikes tapering, nodding at maturity, rounded shoulder shape and acuminate beak. Chaff white. Awns present. Good grazing wheat in southern Kansas and Oklahoma. Double cropping potential in Eastern hard wheat areas. Resistant to soil borne mosaic virus. Moderately resistant to leaf and stem rust, wheat streak mosaic virus, Hessian fly. Winter Annual. Cultivar. Seed.

477289. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by C. Bruns; North American Plant Breeders; Berthoud, Colorado.  
Received April 1983.

'Blazer'. United States. Olesen/Lewis//W504. White chaffed, soft red type. Plants medium height. Maturity early. Straw strong. Heads middense, tapering, awned. Seeds elliptical with rounded checks, high test weight.

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Adapted to the northern soft wheat region. Good milling and baking quality. Resistant to soil borne mosaic virus, powdery mildew, Septoria. Fair resistance to leaf rust, stem rust. Poor resistance to Hessian fly. Winter Annual. Cultivar. Seed.

477290. *Lens culinaris* Medik. (Fabaceae) Lentil.

From Pakistan. Donated by Tarnah Agricultural Research Institute; Peshawar. Received through W.J. Kaiser, Regional Plant Introduction Station, Pullman, Washington. Received April 1983.

Pakistan. Northwest Frontier Province. Seeds small. Used as local check in 1983 Lentil International Small Seeded Screening Nursery from ICARDA. Cultivated. Seed.

477291 TO 477297. *Cicer arietinum* L. (Fabaceae) Chickpea.

From Pakistan. Donated by S.A. Qureshi; National Agricultural Research Center; Islamabad. Received through W.J. Kaiser, Regional Plant Introduction Station, Pullman, Washington. Received April 1983.

477291. C-44. Pakistan. Kalurkot. Local type. Cultivated. Seed.

477292. C-727. Pakistan. Kalurkot. Local type. Cultivated. Seed.

477293. CM-68. Pakistan. Faisalabad. Niab National Institute of Biology & Agriculture. Derived by mutation breeding. Cultivated. Seed.

477294. CM-72. Pakistan. Faisalabad. Niab National Institute of Biology & Agriculture. Derived by mutation breeding. Resistance to *Ascochyta rabiei*. Cultivated. Seed.

477295. RC-32. Pakistan. Kalurkot. Local type. Cultivated. Seed.

477296. 612. Pakistan. Local type. Cultivated. Seed.

477297. 6153. Pakistan. Local type. Cultivated. Seed.

477298 TO 477300. *Lens culinaris* Medik. (Fabaceae) Lentil.

From Pakistan. Donated by A. Majeed Haqqani; National Agricultural Research Center; Islamabad. Received through W.J. Kaiser, Regional Plant Introduction Station, Pullman, Washington. Received April 1983.

477298 TO 477300-continued

477298. 9-6. Pakistan. Selection from local type. Seeds small.  
Cultivated. Seed.

477299. 18-10. Pakistan. Selection from local type. Seeds small.  
Cultivated. Seed.

477300. 18-12. Pakistan. Selection from local type. Seeds small.  
Cultivated. Seed.

477301. *Calliandra calothyrsus* Meissn. (Fabaceae).

From United States. Donated by Tree Seeds International; Chevy  
Chase, Maryland.  
Received April 1983.

Indonesia. Collected December 1980. Java. Cultivated.  
Seed.

477302. *Sesbania grandiflora* (L.) Poir. (Fabaceae).

From United States. Donated by Tree Seeds International; Chevy  
Chase, Maryland.  
Received April 1983.

Indonesia. Collected January 1981. Java. Cultivated.  
Seed.

477303. *Cymbopogon citratus* (DC.) Stapf (Poaceae) Lemongrass.

From United States. Donated by Mayaguez Institute of Tropical  
Agriculture, United States Department of Agriculture;  
Mayaguez, Puerto Rico.  
Received April 1983.

Ornamental. Cultivated. Plants.

477304. *Cymbopogon nardus* (L.) Rendle (Poaceae) Citronella grass.

From United States. Donated by Mayaguez Institute of Tropical  
Agriculture, United States Department of Agriculture;  
Mayaguez, Puerto Rico.  
Received April 1983.

Ornamental. Cultivated. Plants.

477305. *Desmodium intortum* (Mill.) Urb. (Fabaceae) Greenleaf desmodium.

From Australia. Donated by Arthur Yates & Co. Pty., Ltd.;

477305-continued

Rockhampton, 4700 Queensland.  
Received November 1982.

Greenleaf. Australia. Cultivar. Seed.

477306. *Desmodium uncinatum* (Jacq.) DC. (Fabaceae) Spanish tickclover.

From Australia. Donated by Arthur Yates & Co. Pty., Ltd.;  
Rockhampton, 4700 Queensland.  
Received November 1982.

Silverleaf. Australia. Cultivar. Seed.

477307 TO 477314. *Coffea arabica* L. (Rubiaceae) Coffee.

From Brazil. Donated by Instituto Agronomico de Campinas;  
Campinas.  
Received April 1983.

477307. LCH 3849-7. Selection from Icatu. Resistant to coffee  
rust (*Hemileia vastatrix*). Cultivated. Seed.

477308. LCH 3851-4. Selection from Icatu. Resistant to coffee  
rust (*Hemileia vastatrix*). Cultivated. Seed.

477309. LCH 4782-13. Selection from Icatu. Resistant to coffee  
rust (*Hemileia vastatrix*). Cultivated. Seed.

477310. LC 1662-10 EP 209 C 1989. Selection from Catimor.  
Resistant to coffee rust (*Hemileia vastatrix*). Cultivated.  
Seed.

477311. LC 1663-6-2 EP 209 C 2002. Selection from Catimor.  
Resistant to coffee rust (*Hemileia vastatrix*). Cultivated.  
Seed.

477312. LC 1668-14 EP 209 C 2705. Selection from Catimor.  
Resistant to coffee rust (*Hemileia vastatrix*). Cultivated.  
Seed.

477313. LC 1669-1-6 EP 227 C 1004. Selection from Catimor.  
Resistant to coffee rust (*Hemileia vastatrix*). Cultivated.  
Seed.

477314. LC 1703 EP 209 C 2716. Selection from Catimor. Resistant  
to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.

477315 TO 477370. *Coffea arabica* L. (Rubiaceae) Coffee.

From Brazil. Donated by G. M. Chaves; Setor de Fitopatologia,

477315 TO 477370-continued

Universidade Federal de Vicosa; Minas Gerais. Code numbers refer to selected progenies of the cultivars Catimor and Cavimor.  
Received April 1983.

- 477315. UFV 2510. Brazil. (1359-713 EP1 UFV)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477316. UFV 2511. Brazil. (1359-714 EP1 UFV)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477317. UFV 2513. Brazil. (1359-734 EP1 UFV)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477318. UFV 2589. Brazil. (1359-79 T13 PN)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477319. UFV 2847. Brazil. (1359-69 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477320. UFV 2860. Brazil. (1340-44 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477321. UFV 2863. Brazil. (1340-261 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477322. UFV 2865. Brazil. (1340-534 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477323. UFV 2866. Brazil. (1340-245 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477324. UFV 3552. Brazil. (1091-158 T1 UFV)-Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477325. UFV 3554. Brazil. (1091-732 T1 UFV)-Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477326. UFV 3603. Brazil. (1096-273 EP1 UFV)-Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477327. UFV 3611. Brazil. (1096-229 EP1 UFV)-Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477328. UFV 3616. Brazil. (1096-255 EP1 UFV)-Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477329. UFV 3860. Brazil. (1603-411 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477330. UFV 3862. Brazil. (1603-185 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.

477315 TO 477370-continued

- 477331. UFV 3877. Brazil. (1603-108 T15 PN)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477332. UFV 3894. Brazil. (1603-488 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477333. UFV 3904. Brazil. (1606-3 T3 A UFV)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477334. UFV 3906. Brazil. (1606-5 T3 A UFV)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477335. UFV 4043. Brazil. (2121-633 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477336. UFV 4045. Brazil. (2121-139 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477337. UFV 4046. Brazil. (2121-158 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477338. UFV 4047. Brazil. (2121-138 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477339. UFV 4052. Brazil. (2119-331 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477340. UFV 4054. Brazil. (2119-207 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477341. UFV 4055. Brazil. (2119-130 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477342. UFV 4250. Brazil. (1541-90 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477343. UFV 4253. Brazil. (1541-91 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477344. UFV 4254. Brazil. (1541-97 EP 20.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477345. UFV 4713. Brazil. (2047-757 EP1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477346. UFV 4715. Brazil. (2047-784 EP1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477347. UFV 5400. Brazil. (3872-630 EP 52)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
- 477348. UFV 5401. Brazil. (3872-642 EP 52)-Catimor. Resistant to

477315 TO 477370-continued

- coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477349. UFV 5402. Brazil. (3872-631 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477350. UFV 5403. Brazil. (3872-419 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477351. UFV 5404. Brazil. (3874 349 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477352. UFV 5420. Brazil. (3874-400 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477353. UFV 5421. Brazil. (3874-425 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477354. UFV 5422. Brazil. (3874-478 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477355. UFV 5430. Brazil. (3876-395 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477356. UFV 5431. Brazil. (3876-394 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477357. UFV 5432. Brazil. (3876-339 EP 52) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477358. UFV 5912. Brazil. (4789-494 EP 46.2) -Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477359. UFV 5913. Brazil. (4789-655 EP 46.2) -Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477360. UFV 5914. Brazil. (4789-495 EP 46.2) -Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477361. UFV 5915. Brazil. (4789-199 EP 46.2) -Cavimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477362. UFV 6478. Brazil. (4580-1 IIISR 58.2) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477363. UFV 6596. Brazil. (4642-4 IIIEP 58.2) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477364. UFV 6597. Brazil. (4642-334 EP 58.1) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.
477365. UFV 6598. Brazil. (4642-608 EP 58.1) -Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.

477315 TO 477370-continued

477366. UFV 6599. Brazil. (4642-337 EP 58.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.

477367. UFV 6600. Brazil. (4642-40 EP 58.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.

477368. UFV 6640. Brazil. (4673-127 EP 58.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.

477369. UFV 6643. Brazil. (4673-737 EP 58.1)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.

477370. UFV 6644. Brazil. (4673-4 II EP 58.2)-Catimor. Resistant to coffee rust (*Hemileia vastatrix*). Cultivated. Seed.

477371. *Pisum sativum* L. (Fabaceae) Field pea.

From United Kingdom. Donated by Mommersteeg International; Finedon, Wellingborough, Northamptonshire NN9 5NT .  
Received May 1983.

'Rosakrone'. Denmark. Maturity medium. Stem fasciation present. Flower standards white, wings pink. Seeds medium sized, peach/buff colored, with dark red spots. Useable as forage but contains an anti-nutritive factor. Cultivar. Seed.

477372 TO 477536. *Zea mays* L. (Poaceae) Field corn.

From Chile. Donated by Orlando Paratori B.; Instituto de Investigaciones Agropecuarias, Estacion Experimental la Platina; Santiago. Received through IBPGR/FAO & R. Sevilla P., IICA, Asuncion, Paraguay.  
Received March 1983.

477372. CH ZM 01 028. Chile. Cultivated. Seed.

477373. CH ZM 01 030. Chile. Cultivated. Seed.

477374. CH ZM 01 031. Chile. Cultivated. Seed.

477375. CH ZM 01 032. Chile. Cultivated. Seed.

477376. CH ZM 01 033. Chile. Cultivated. Seed.

477377. CH ZM 01 034. Chile. Cultivated. Seed.

477378. CH ZM 01 036. Chile. Cultivated. Seed.

477379. CH ZM 01 038. Chile. Cultivated. Seed.



477372 TO 477536-continued

477380. CH ZM 01 039. Chile. Cultivated. Seed.  
477381. CH ZM 01 040. Chile. Cultivated. Seed.  
477382. CH ZM 01 041. Chile. Cultivated. Seed.  
477383. CH ZM 01 042. Chile. Cultivated. Seed.  
477384. CH ZM 01 043. Chile. Cultivated. Seed.  
477385. CH ZM 01 044. Chile. Cultivated. Seed.  
477386. CH ZM 01 045. Chile. Cultivated. Seed.  
477387. CH ZM 01 046. Chile. Cultivated. Seed.  
477388. CH ZM 01 047. Chile. Cultivated. Seed.  
477389. CH ZM 01 049. Chile. Cultivated. Seed.  
477390. CH ZM 01 051. Chile. Cultivated. Seed.  
477391. CH ZM 01 052. Chile. Cultivated. Seed.  
477392. CH ZM 01 053. Chile. Cultivated. Seed.  
477393. CH ZM 01 054. Chile. Cultivated. Seed.  
477394. CH ZM 01 056. Chile. Cultivated. Seed.  
477395. CH ZM 01 057. Chile. Cultivated. Seed.  
477396. CH ZM 01 058. Chile. Cultivated. Seed.  
477397. CH ZM 01 059. Chile. Cultivated. Seed.  
477398. CH ZM 01 060. Chile. Cultivated. Seed.  
477399. CH ZM 01 061. Chile. Cultivated. Seed.  
477400. CH ZM 01 062. Chile. Cultivated. Seed.  
477401. CH ZM 01 063. Chile. Cultivated. Seed.  
477402. CH ZM 01 064. Chile. Cultivated. Seed.  
477403. CH ZM 01 065. Chile. Cultivated. Seed.  
477404. CH ZM 01 066. Chile. Cultivated. Seed.  
477405. CH ZM 01 067. Chile. Cultivated. Seed.

477372 TO 477536-continued

477406. CH ZH 01 068. Chile. Cultivated. Seed.  
477407. CH ZH 01 069. Chile. Cultivated. Seed.  
477408. CH ZH 01 070. Chile. Cultivated. Seed.  
477409. CH ZH 01 071. Chile. Cultivated. Seed.  
477410. CH ZH 01 072. Chile. Cultivated. Seed.  
477411. CH ZH 02 023. Chile. Cultivated. Seed.  
477412. CH ZH 03 011. Chile. Cultivated. Seed.  
477413. CH ZH 03 012. Chile. Cultivated. Seed.  
477414. CH ZH 03 013. Chile. Cultivated. Seed.  
477415. CH ZH 03 014. Chile. Cultivated. Seed.  
477416. CH ZH 03 015. Chile. Cultivated. Seed.  
477417. CH ZH 03 016. Chile. Cultivated. Seed.  
477418. CH ZH 07 037. Chile. Cultivated. Seed.  
477419. CH ZH 07 040. Chile. Cultivated. Seed.  
477420. CH ZH 07 041. Chile. Cultivated. Seed.  
477421. CH ZH 07 042. Chile. Cultivated. Seed.  
477422. CH ZH 07 043. Chile. Cultivated. Seed.  
477423. CH ZH 07 044. Chile. Cultivated. Seed.  
477424. CH ZH 07 045. Chile. Cultivated. Seed.  
477425. CH ZH 07 046. Chile. Cultivated. Seed.  
477426. CH ZH 07 047. Chile. Cultivated. Seed.  
477427. CH ZH 07 048. Chile. Cultivated. Seed.  
477428. CH ZH 07 049. Chile. Cultivated. Seed.  
477429. CH ZH 07 050. Chile. Cultivated. Seed.  
477430. CH ZH 07 051. Chile. Cultivated. Seed.  
477431. CH ZH 07 052. Chile. Cultivated. Seed.

477372 TO 477536-continued

477432. CH ZH 07 053. Chile. Cultivated. Seed.  
477433. CH ZH 07 054. Chile. Cultivated. Seed.  
477434. CH ZH 07 055. Chile. Cultivated. Seed.  
477435. CH ZH 07 056. Chile. Cultivated. Seed.  
477436. CH ZH 07 057. Chile. Cultivated. Seed.  
477437. CH ZH 07 058. Chile. Cultivated. Seed.  
477438. CH ZH 07 059. Chile. Cultivated. Seed.  
477439. CH ZH 07 060. Chile. Cultivated. Seed.  
477440. CH ZH 07 062. Chile. Cultivated. Seed.  
477441. CH ZH 07 063. Chile. Cultivated. Seed.  
477442. CH ZH 07 065. Chile. Cultivated. Seed.  
477443. CH ZH 07 066. Chile. Cultivated. Seed.  
477444. CH ZH 07 067. Chile. Cultivated. Seed.  
477445. CH ZH 07 068. Chile. Cultivated. Seed.  
477446. CH ZH 07 069. Chile. Cultivated. Seed.  
477447. CH ZH 07 070. Chile. Cultivated. Seed.  
477448. CH ZH 07 071. Chile. Cultivated. Seed.  
477449. CH ZH 07 072. Chile. Cultivated. Seed.  
477450. CH ZH 07 073. Chile. Cultivated. Seed.  
477451. CH ZH 07 074. Chile. Cultivated. Seed.  
477452. CH ZH 07 075. Chile. Cultivated. Seed.  
477453. CH ZH 07 076. Chile. Cultivated. Seed.  
477454. CH ZH 07 077. Chile. Cultivated. Seed.  
477455. CH ZH 07 078. Chile. Cultivated. Seed.  
477456. CH ZH 07 079. Chile. Cultivated. Seed.  
477457. CH ZH 07 080. Chile. Cultivated. Seed.

477372 TO 477536-continued

477458. CH ZM 07 081. Chile. Cultivated. Seed.  
477459. CH ZM 07 083. Chile. Cultivated. Seed.  
477460. CH ZM 07 084. Chile. Cultivated. Seed.  
477461. CH ZM 07 085. Chile. Cultivated. Seed.  
477462. CH ZM 07 086. Chile. Cultivated. Seed.  
477463. CH ZM 07 088. Chile. Cultivated. Seed.  
477464. CH ZM 07 089. Chile. Cultivated. Seed.  
477465. CH ZM 07 090. Chile. Cultivated. Seed.  
477466. CH ZM 07 091. Chile. Cultivated. Seed.  
477467. CH ZM 07 092. Chile. Cultivated. Seed.  
477468. CH ZM 07 093. Chile. Cultivated. Seed.  
477469. CH ZM 07 094. Chile. Cultivated. Seed.  
477470. CH ZM 07 095. Chile. Cultivated. Seed.  
477471. CH ZM 07 097. Chile. Cultivated. Seed.  
477472. CH ZM 07 098. Chile. Cultivated. Seed.  
477473. CH ZM 07 099. Chile. Cultivated. Seed.  
477474. CH ZM 07 101. Chile. Cultivated. Seed.  
477475. CH ZM 07 102. Chile. Cultivated. Seed.  
477476. CH ZM 07 103. Chile. Cultivated. Seed.  
477477. CH ZM 08 050. Chile. Cultivated. Seed.  
477478. CH ZM 08 055. Chile. Cultivated. Seed.  
477479. CH ZM 08 058. Chile. Cultivated. Seed.  
477480. CH ZM 08 059. Chile. Cultivated. Seed.  
477481. CH ZM 08 063. Chile. Cultivated. Seed.  
477482. CH ZM 08 064. Chile. Cultivated. Seed.  
477483. CH ZM 08 065. Chile. Cultivated. Seed.

477372 TO 477536-continued

477484. CH ZM 08 070. Chile. Cultivated. Seed.  
477485. CH ZM 08 071. Chile. Cultivated. Seed.  
477486. CH ZM 08 072. Chile. Cultivated. Seed.  
477487. CH ZM 08 073. Chile. Cultivated. Seed.  
477488. CH ZM 08 074. Chile. Cultivated. Seed.  
477489. CH ZM 08 075. Chile. Cultivated. Seed.  
477490. CH ZM 08 078. Chile. Cultivated. Seed.  
477491. CH ZM 08 079. Chile. Cultivated. Seed.  
477492. CH ZM 08 081. Chile. Cultivated. Seed.  
477493. CH ZM 09 001. Chile. Cultivated. Seed.  
477494. CH ZM 09 002. Chile. Cultivated. Seed.  
477495. CH ZM 09 003. Chile. Cultivated. Seed.  
477496. CH ZM 09 004. Chile. Cultivated. Seed.  
477497. CH ZM 09 005. Chile. Cultivated. Seed.  
477498. CH ZM 09 006. Chile. Cultivated. Seed.  
477499. CH ZM 09 007. Chile. Cultivated. Seed.  
477500. CH ZM 09 008. Chile. Cultivated. Seed.  
477501. CH ZM 09 010. Chile. Cultivated. Seed.  
477502. CH ZM 09 011. Chile. Cultivated. Seed.  
477503. CH ZM 09 013. Chile. Cultivated. Seed.  
477504. CH ZM 09 018. Chile. Cultivated. Seed.  
477505. CH ZM 09 021. Chile. Cultivated. Seed.  
477506. CH ZM 09 025. Chile. Cultivated. Seed.  
477507. CH ZM 09 028. Chile. Cultivated. Seed.  
477508. CH ZM 09 029. Chile. Cultivated. Seed.  
477509. CH ZM 09 030. Chile. Cultivated. Seed.

477372 TO 477536-continued

477510. CH ZM 09 033. Chile. Cultivated. Seed.  
477511. CH ZM 09 038. Chile. Cultivated. Seed.  
477512. CH ZM 09 041. Chile. Cultivated. Seed.  
477513. CH ZM 09 045. Chile. Cultivated. Seed.  
477514. CH ZM 09 052. Chile. Cultivated. Seed.  
477515. CH ZM 09 054. Chile. Cultivated. Seed.  
477516. CH ZM 09 058. Chile. Cultivated. Seed.  
477517. CH ZM 09 059. Chile. Cultivated. Seed.  
477518. CH ZM 09 061. Chile. Cultivated. Seed.  
477519. CH ZM 09 062. Chile. Cultivated. Seed.  
477520. CH ZM 09 063. Chile. Cultivated. Seed.  
477521. CH ZM 09 065. Chile. Cultivated. Seed.  
477522. CH ZM 09 068. Chile. Cultivated. Seed.  
477523. CH ZM 10 004. Chile. Cultivated. Seed.  
477524. CH ZM 10 006. Chile. Cultivated. Seed.  
477525. CH ZM 10 008. Chile. Cultivated. Seed.  
477526. CH ZM 10 009. Chile. Cultivated. Seed.  
477527. CH ZM 10 018. Chile. Cultivated. Seed.  
477528. CH ZM 10 019. Chile. Cultivated. Seed.  
477529. CH ZM 10 028. Chile. Cultivated. Seed.  
477530. CH ZM 10 029. Chile. Cultivated. Seed.  
477531. CH ZM 10 035. Chile. Cultivated. Seed.  
477532. CH ZM 10 036. Chile. Cultivated. Seed.  
477533. CH ZM 13 020. Chile. Cultivated. Seed.  
477534. CH ZM 13 021. Chile. Cultivated. Seed.  
477535. CH ZM 13 024. Chile. Cultivated. Seed.

477372 TO 477536-continued

477536. CH ZM 13 025. Chile. Cultivated. Seed.

477537 TO 477762. Zea mays L. (Poaceae) Field corn.

From Mexico. Donated by Centro Internacional de Mejoramiento de Maiz and Trigo; Mexico 6, D.F. Received through Pioneer Hi-Bred International, Inc., Dept. of Corn Breeding, Homestead, FL.  
Received April 1983.

477537. URU 008A. Uruguay. Cultivated. Seed.

477538. URU 016A. Uruguay. Cultivated. Seed.

477539. URU 026A. Uruguay. Cultivated. Seed.

477540. URU 058A. Uruguay. Cultivated. Seed.

477541. URU 096A. Uruguay. Cultivated. Seed.

477542. URU 108A. Uruguay. Cultivated. Seed.

477543. URU 137A. Uruguay. Cultivated. Seed.

477544. URU 156A. Uruguay. Cultivated. Seed.

477545. URU 160A. Uruguay. Cultivated. Seed.

477546. URU 166A. Uruguay. Cultivated. Seed.

477547. URU 167A. Uruguay. Cultivated. Seed.

477548. URU 208A. Uruguay. Cultivated. Seed.

477549. URU 213A. Uruguay. Cultivated. Seed.

477550. URU 217A. Uruguay. Cultivated. Seed.

477551. URU 223A. Uruguay. Cultivated. Seed.

477552. URU 248A. Uruguay. Cultivated. Seed.

477553. URU 267A. Uruguay. Cultivated. Seed.

477554. URU 268A. Uruguay. Cultivated. Seed.

477555. URU 289A. Uruguay. Cultivated. Seed.

477556. URU 299A. Uruguay. Cultivated. Seed.

477557. URU 309A. Uruguay. Cultivated. Seed.

477537 TO 477762-continued

477558. URU 323A. Uruguay. Cultivated. Seed.  
477559. URU 327A. Uruguay. Cultivated. Seed.  
477560. URU 344A. Uruguay. Cultivated. Seed.  
477561. URU 349A. Uruguay. Cultivated. Seed.  
477562. URU 352A. Uruguay. Cultivated. Seed.  
477563. URU 363A. Uruguay. Cultivated. Seed.  
477564. URU 368A. Uruguay. Cultivated. Seed.  
477565. URU 369A. Uruguay. Cultivated. Seed.  
477566. URU 373A. Uruguay. Cultivated. Seed.  
477567. URU 378A. Uruguay. Cultivated. Seed.  
477568. URU 381A. Uruguay. Cultivated. Seed.  
477569. URU 384A. Uruguay. Cultivated. Seed.  
477570. URU 388A. Uruguay. Cultivated. Seed.  
477571. URU 394A. Uruguay. Cultivated. Seed.  
477572. URU 400A. Uruguay. Cultivated. Seed.  
477573. URU 401A. Uruguay. Cultivated. Seed.  
477574. URU 413A. Uruguay. Cultivated. Seed.  
477575. URU 423A. Uruguay. Cultivated. Seed.  
477576. URU 424A. Uruguay. Cultivated. Seed.  
477577. URU 429A. Uruguay. Cultivated. Seed.  
477578. URU 502A. Uruguay. Cultivated. Seed.  
477579. URU 508A. Uruguay. Cultivated. Seed.  
477580. URU 511A. Uruguay. Cultivated. Seed.  
477581. URU 515A. Uruguay. Cultivated. Seed.  
477582. URU 516A. Uruguay. Cultivated. Seed.  
477583. URU 519A. Uruguay. Cultivated. Seed.



477537 TO 477762-continued

477584. URU 521A. Uruguay. Cultivated. Seed.  
477585. URU 522A. Uruguay. Cultivated. Seed.  
477586. URU 525A. Uruguay. Cultivated. Seed.  
477587. URU 526A. Uruguay. Cultivated. Seed.  
477588. URU 529A. Uruguay. Cultivated. Seed.  
477589. URU 530A. Uruguay. Cultivated. Seed.  
477590. URU 531A. Uruguay. Cultivated. Seed.  
477591. URU 534A. Uruguay. Cultivated. Seed.  
477592. URU 535A. Uruguay. Cultivated. Seed.  
477593. URU 538A. Uruguay. Cultivated. Seed.  
477594. URU 539A. Uruguay. Cultivated. Seed.  
477595. URU 542A. Uruguay. Cultivated. Seed.  
477596. URU 544A. Uruguay. Cultivated. Seed.  
477597. URU 545A. Uruguay. Cultivated. Seed.  
477598. URU 546A. Uruguay. Cultivated. Seed.  
477599. URU 549A. Uruguay. Cultivated. Seed.  
477600. URU 550A. Uruguay. Cultivated. Seed.  
477601. URU 556A. Uruguay. Cultivated. Seed.  
477602. URU 557A. Uruguay. Cultivated. Seed.  
477603. URU 559A. Uruguay. Cultivated. Seed.  
477604. URU 562A. Uruguay. Cultivated. Seed.  
477605. URU 563A. Uruguay. Cultivated. Seed.  
477606. URU 564A. Uruguay. Cultivated. Seed.  
477607. URU 567A. Uruguay. Cultivated. Seed.  
477608. URU 570A. Uruguay. Cultivated. Seed.  
477609. URU 573A. Uruguay. Cultivated. Seed.

477537 TO 477762-continued

477610. URU 577A. Uruguay. Cultivated. Seed.  
477611. URU 578A. Uruguay. Cultivated. Seed.  
477612. URU 581A. Uruguay. Cultivated. Seed.  
477613. URU 582A. Uruguay. Cultivated. Seed.  
477614. URU 584A. Uruguay. Cultivated. Seed.  
477615. URU 585A. Uruguay. Cultivated. Seed.  
477616. URU 588A. Uruguay. Cultivated. Seed.  
477617. URU 589A. Uruguay. Cultivated. Seed.  
477618. URU 591A. Uruguay. Cultivated. Seed.  
477619. URU 592A. Uruguay. Cultivated. Seed.  
477620. URU 593A. Uruguay. Cultivated. Seed.  
477621. URU 594A. Uruguay. Cultivated. Seed.  
477622. URU 595A. Uruguay. Cultivated. Seed.  
477623. URU 599A. Uruguay. Cultivated. Seed.  
477624. URU 600A. Uruguay. Cultivated. Seed.  
477625. URU 601A. Uruguay. Cultivated. Seed.  
477626. URU 602A. Uruguay. Cultivated. Seed.  
477627. URU 603A. Uruguay. Cultivated. Seed.  
477628. URU 604A. Uruguay. Cultivated. Seed.  
477629. URU 606A. Uruguay. Cultivated. Seed.  
477630. URU 609A. Uruguay. Cultivated. Seed.  
477631. URU 611A. Uruguay. Cultivated. Seed.  
477632. URU 613A. Uruguay. Cultivated. Seed.  
477633. URU 620A. Uruguay. Cultivated. Seed.  
477634. URU 621A. Uruguay. Cultivated. Seed.  
477635. URU 624A. Uruguay. Cultivated. Seed.

477537 TO 477762-continued

- 477636. URU 625A. Uruguay. Cultivated. Seed.
- 477637. URU 626A. Uruguay. Cultivated. Seed.
- 477638. URU 627A. Uruguay. Cultivated. Seed.
- 477639. URU 630A. Uruguay. Cultivated. Seed.
- 477640. URU 631A. Uruguay. Cultivated. Seed.
- 477641. URU 633A. Uruguay. Cultivated. Seed.
- 477642. URU 634A. Uruguay. Cultivated. Seed.
- 477643. URU 636A. Uruguay. Cultivated. Seed.
- 477644. URU 640A. Uruguay. Cultivated. Seed.
- 477645. URU 641A. Uruguay. Cultivated. Seed.
- 477646. URU 642A. Uruguay. Cultivated. Seed.
- 477647. URU 643A. Uruguay. Cultivated. Seed.
- 477648. URU 644A. Uruguay. Cultivated. Seed.
- 477649. URU 646A. Uruguay. Cultivated. Seed.
- 477650. URU 647A. Uruguay. Cultivated. Seed.
- 477651. URU 649A. Uruguay. Cultivated. Seed.
- 477652. URU 650A. Uruguay. Cultivated. Seed.
- 477653. URU 651A. Uruguay. Cultivated. Seed.
- 477654. URU 652A. Uruguay. Cultivated. Seed.
- 477655. URU 655A. Uruguay. Cultivated. Seed.
- 477656. URU 657A. Uruguay. Cultivated. Seed.
- 477657. URU 658A. Uruguay. Cultivated. Seed.
- 477658. URU 659A. Uruguay. Cultivated. Seed.
- 477659. URU 661A. Uruguay. Cultivated. Seed.
- 477660. URU 663A. Uruguay. Cultivated. Seed.
- 477661. URU 665A. Uruguay. Cultivated. Seed.

477537 TO 477762-continued

477662. URU 669A. Uruguay. Cultivated. Seed.  
477663. URU 670A. Uruguay. Cultivated. Seed.  
477664. URU 673A. Uruguay. Cultivated. Seed.  
477665. URU 674A. Uruguay. Cultivated. Seed.  
477666. URU 679A. Uruguay. Cultivated. Seed.  
477667. URU 681A. Uruguay. Cultivated. Seed.  
477668. URU 686A. Uruguay. Cultivated. Seed.  
477669. URU 688A. Uruguay. Cultivated. Seed.  
477670. URU 692A. Uruguay. Cultivated. Seed.  
477671. URU 699A. Uruguay. Cultivated. Seed.  
477672. URU 701A. Uruguay. Cultivated. Seed.  
477673. URU 703A. Uruguay. Cultivated. Seed.  
477674. URU 708A. Uruguay. Cultivated. Seed.  
477675. URU 709A. Uruguay. Cultivated. Seed.  
477676. URU 710A. Uruguay. Cultivated. Seed.  
477677. URU 712A. Uruguay. Cultivated. Seed.  
477678. URU 714A. Uruguay. Cultivated. Seed.  
477679. URU 718A. Uruguay. Cultivated. Seed.  
477680. URU 720A. Uruguay. Cultivated. Seed.  
477681. URU 722A. Uruguay. Cultivated. Seed.  
477682. URU 725A. Uruguay. Cultivated. Seed.  
477683. URU 726A. Uruguay. Cultivated. Seed.  
477684. URU 730A. Uruguay. Cultivated. Seed.  
477685. URU 733A. Uruguay. Cultivated. Seed.  
477686. URU 734A. Uruguay. Cultivated. Seed.  
477687. URU 736A. Uruguay. Cultivated. Seed.

477537 TO 477762-continued

- 477688. URU 741A. Uruguay. Cultivated. Seed.
- 477689. URU 749A. Uruguay. Cultivated. Seed.
- 477690. URU 750A. Uruguay. Cultivated. Seed.
- 477691. URU 751A. Uruguay. Cultivated. Seed.
- 477692. URU 752A. Uruguay. Cultivated. Seed.
- 477693. URU 753A. Uruguay. Cultivated. Seed.
- 477694. URU 756A. Uruguay. Cultivated. Seed.
- 477695. URU 1001A. Uruguay. Cultivated. Seed.
- 477696. URU 1005A. Uruguay. Cultivated. Seed.
- 477697. URU 1010A. Uruguay. Cultivated. Seed.
- 477698. URU 1011A. Uruguay. Cultivated. Seed.
- 477699. URU 1021A. Uruguay. Cultivated. Seed.
- 477700. URU 1022A. Uruguay. Cultivated. Seed.
- 477701. URU 1025A. Uruguay. Cultivated. Seed.
- 477702. URU 1026A. Uruguay. Cultivated. Seed.
- 477703. URU 1027A. Uruguay. Cultivated. Seed.
- 477704. URU 1030A. Uruguay. Cultivated. Seed.
- 477705. URU 1033A. Uruguay. Cultivated. Seed.
- 477706. URU 1034A. Uruguay. Cultivated. Seed.
- 477707. URU 1035A. Uruguay. Cultivated. Seed.
- 477708. URU 1036A. Uruguay. Cultivated. Seed.
- 477709. URU 1038A. Uruguay. Cultivated. Seed.
- 477710. URU 1041A. Uruguay. Cultivated. Seed.
- 477711. URU 1042A. Uruguay. Cultivated. Seed.
- 477712. URU 1043A. Uruguay. Cultivated. Seed.
- 477713. URU 1045A. Uruguay. Cultivated. Seed.

477537 TO 477762-continued

477714. URU 1047A. Uruguay. Cultivated. Seed.  
477715. URU 1050A. Uruguay. Cultivated. Seed.  
477716. URU 1052A. Uruguay. Cultivated. Seed.  
477717. URU 1057A. Uruguay. Cultivated. Seed.  
477718. URU 1058A. Uruguay. Cultivated. Seed.  
477719. URU 1061A. Uruguay. Cultivated. Seed.  
477720. URU 1064A. Uruguay. Cultivated. Seed.  
477721. URU 1071A. Uruguay. Cultivated. Seed.  
477722. URU 1072A. Uruguay. Cultivated. Seed.  
477723. URU 1074A. Uruguay. Cultivated. Seed.  
477724. URU 1077A. Uruguay. Cultivated. Seed.  
477725. URU 1084A. Uruguay. Cultivated. Seed.  
477726. URU 1088A. Uruguay. Cultivated. Seed.  
477727. URU 1091A. Uruguay. Cultivated. Seed.  
477728. URU 1095A. Uruguay. Cultivated. Seed.  
477729. URU 1096A. Uruguay. Cultivated. Seed.  
477730. URU 1100A. Uruguay. Cultivated. Seed.  
477731. URU 1102A. Uruguay. Cultivated. Seed.  
477732. URU 1103A. Uruguay. Cultivated. Seed.  
477733. URU 1105A. Uruguay. Cultivated. Seed.  
477734. URU 1108A. Uruguay. Cultivated. Seed.  
477735. URU 1113A. Uruguay. Cultivated. Seed.  
477736. URU 1114A. Uruguay. Cultivated. Seed.  
477737. URU 1120A. Uruguay. Cultivated. Seed.  
477738. URU 1133A. Uruguay. Cultivated. Seed.  
477739. URU 1146A. Uruguay. Cultivated. Seed.

477537 TO 477762-continued

477740. URU 1147A. Uruguay. Cultivated. Seed.  
477741. URU 1148A. Uruguay. Cultivated. Seed.  
477742. URU 1151A. Uruguay. Cultivated. Seed.  
477743. URU 1154A. Uruguay. Cultivated. Seed.  
477744. URU 1158A. Uruguay. Cultivated. Seed.  
477745. URU 1161A. Uruguay. Cultivated. Seed.  
477746. URU 1163A. Uruguay. Cultivated. Seed.  
477747. URU 1164A. Uruguay. Cultivated. Seed.  
477748. URU 1167A. Uruguay. Cultivated. Seed.  
477749. URU 1168A. Uruguay. Cultivated. Seed.  
477750. URU 1170A. Uruguay. Cultivated. Seed.  
477751. URU 1171A. Uruguay. Cultivated. Seed.  
477752. URU 1177A. Uruguay. Cultivated. Seed.  
477753. URU 1179A. Uruguay. Cultivated. Seed.  
477754. URU 1185A. Uruguay. Cultivated. Seed.  
477755. URU 1191A. Uruguay. Cultivated. Seed.  
477756. URU 1192A. Uruguay. Cultivated. Seed.  
477757. URU 1198A. Uruguay. Cultivated. Seed.  
477758. URU 1201A. Uruguay. Cultivated. Seed.  
477759. URU 1203A. Uruguay. Cultivated. Seed.  
477760. URU 1208A. Uruguay. Cultivated. Seed.  
477761. URU 1221A. Uruguay. Cultivated. Seed.  
477762. URU 1227A. Uruguay. Cultivated. Seed.

477763 TO 477862. *Hordeum vulgare* L. (Poaceae) Barley.

From Peru. Collected by M. Romero Loli; Programa de Cereales, Universidad Nacional Agraria, La Molina; Lima 14. Code numbers refer to Universidad Nacional Agraria Barley

477763 TO 477862-continued  
Germplasm Bank.  
Received April 1983.

477763. CNC 201574. Bolivia. Six row type. Local name Cebada. Cultivated. Seed.
477764. CNC 201638. Peru. Six row naked type. Local name Cebada. Cultivated. Seed.
477765. CNC 201791. Bolivia. Other identification 15-Tiahuanaco-24. Six row type. Local name Cebada. Cultivated. Seed.
477766. CNC 204024. Peru. Lat. 13 deg. S, Long. 73 deg. W. Cusco. Other identification Maras-1380. Six row type. Local name Cebada. Cultivated. Seed.
477767. CNC 204400. Peru. Lat. 13 deg. S, Long. 73 deg. W. Cusco. Other identification Maras-1741. Six row type. Local name Cebada. Cultivated. Seed.
477768. CNC 204693. Peru. Lat. 13 deg. S, Long. 73 deg. W. Cusco. Other identification Maras-2018. Six row type. Local name Cebada. Cultivated. Seed.
477769. UNA 80. Peru. Cultivated. Seed.
477770. UNA 8276. Peru. Lat. 9 deg. S, Long. 78 deg. W. Ancash. Other identification Parianca 48-2. Six row type. Local name Cabada. Cultivated. Seed.
477771. UNA 8278. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-32. Six row type. Local name Cebada. Cultivated. Seed.
477772. UNA 8279. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-33. Six row type. Local name Cebada. Cultivated. Seed.
477773. UNA 8293. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-5. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477774. UNA 8300. Peru. Lat. 15 deg. S, Long. 70 deg. W. Huancane, Puno. Other identification 33-Vilquechico-621. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477775. UNA 8301. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 1-Vinto-6. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477776. UNA 8302. Peru. Lat. 13 deg. S, Long. 73 deg. W. Maras, Cusco. Other identification Maras-301. Six row type.



477763 TO 477862-continued

Local name Cebada. Cultivated. Seed.

477777. UNA 8303. Peru. Lat. 13 deg. S, Long. 73 deg. W. Anta, Cusco. Other identification Anta-52. Six row type. Local name Cebada. Cultivated. Seed.
477778. UNA 8304. Peru. Lat. 13 deg. S, Long. 73 deg. W. Anta, Cusco. Other identification Anta-67. Two row type. Local name Cebada. Cultivated. Seed.
477779. UNA 8305. Peru. Lat. 13 deg. S, Long. 73 deg. W. Anta, Cusco. Other identification Anta-467. Six row type. Local name Cebada. Cultivated. Seed.
477780. UNA 8306. Peru. Lat. 13 deg. S, Long. 73 deg. W. Anta, Cusco. Other identification Anta-519. Six row type. Local name Cebada. Cultivated. Seed.
477781. UNA 8307. Peru. Lat. 13 deg. S, Long. 73 deg. W. Anta, Cusco. Other identification Anta-539. Six row type. Local name Cebada. Cultivated. Seed.
477782. UNA 8310. Peru. Lat. 13 deg. S, Long. 73 deg. W. Maras, Cusco. Other identification Maras-961. Six row type. Local name Cebada. Cultivated. Seed.
477783. UNA 8311. Peru. Lat. 13 deg. S, Long. 73 deg. W. Maras, Cusco. Other identification Maras-1068. Six row type. Local name Cebada. Cultivated. Seed.
477784. UNA 8312. Peru. Lat. 13 deg. S, Long. 73 deg. W. Maras, Cusco. Other identification Maras-1020. Six row type. Local name Cebada. Cultivated. Seed.
477785. UNA 8313. Peru. Lat. 13 deg. S, Long. 73 deg. W. Maras, Cusco. Other identification Maras-1106. Six row type. Local name Cebada. Cultivated. Seed.
477786. UNA 8314. Peru. Lat. 13 deg. S, Long. 73 deg. W. Maras, Cusco. Other identification Maras-1188. Six row type. Local name Cebada. Cultivated. Seed.
477787. UNA 8315. Peru. Lat. 13 deg. S, Long. 73 deg. W. Maras, Cusco. Other identification Maras-1196. Six row type. Local name Cebada. Cultivated. Seed.
477788. UNA 8316. Peru. Lat. 13 deg. S, Long. 73 deg. W. Maras, Cusco. Other identification Maras-1920. Six row type. Local name Cebada. Cultivated. Seed.
477789. UNA 8317. Peru. Lat. 13 deg. S, Long. 73 deg. W. Anta, Cusco. Other identification Anta-80. Six row type. Local name Cebada. Cultivated. Seed.

477763 TO 477862-continued

477790. UNA 8318. Peru. Lat. 9 deg. S, Long. 78 deg. W. Aija, Ancash. Other identification Aija-7. Six row type. Local name Cebada. Cultivated. Seed.
477791. UNA 8319. Peru. Lat. 9 deg. S, Long. 78 deg. W. Recuay, Ancash. Other identification Recuay-6. Six row type. Local name Cebada. Cultivated. Seed.
477792. UNA 8320. Peru. Lat. 9 deg. S, Long. 78 deg. W. Recuay, Ancash. Other identification Recuay-3. Six row type. Local name Cebada. Cultivated. Seed.
477793. UNA 8321. Peru. Lat. 9 deg. S, Long. 78 deg. W. Recuay, Ancash. Other identification Recuay-1. Six row type. Local name Cebada. Cultivated. Seed.
477794. UNA 8322. Peru. Lat. 9 deg. S, Long. 78 deg. W. Recuay, Ancash. Other identification Recuay-2. Six row type. Cultivated. Seed.
477795. UNA 8323. Peru. Lat. 9 deg. S, Long. 78 deg. W. Recuay, Ancash. Other identification Recuay-10. Six row type. Local name Cebada. Cultivated. Seed.
477796. UNA 8325. Peru. Lat. 15 deg. S, Long. 70 deg. W. Huancane, Puno. Other identification 33-Vilquechico-33. Six row type. Local name Cebada. Cultivated. Seed.
477797. UNA 8326. Peru. Lat. 15 deg. S, Long. 70 deg. W. Huancane, Puno. Other identification 33-Vilquechico-34. Six row type. Local name Cebada. Cultivated. Seed.
477798. UNA 8327. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-22. Six row type. Local name Cebada. Cultivated. Seed.
477799. UNA 8329. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-31. Six row type. Local name Cebada. Cultivated. Seed.
477800. UNA 8330. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-34. Six row type. Local name Cebada. Cultivated. Seed.
477801. UNA 8331. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification Juliaca 57. Six row type. Local name Cebada. Cultivated. Seed.
477802. UNA 8332. Peru. Lat. 15 deg. S, Long. 70 deg. W. Huancane, Puno. Other identification 33-Vilquechico-104. Six row type. Local name Cebada. Cultivated. Seed.

477763 TO 477862-continued

477803. UNA 8333. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-118.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477804. UNA 8334. Peru. Other identification 33-Vilquechico-119.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477805. UNA 8336. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-140.  
Six row type. Local name Cebada. Cultivated. Seed.
477806. UNA 8337. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-180.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477807. UNA 8338. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-193.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477808. UNA 8339. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-207.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477809. UNA 8340. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-216.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477810. UNA 8341. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-218.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477811. UNA 8342. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-224.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477812. UNA 8345. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-288.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477813. UNA 8346. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-352.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.

477763 TO 477862-continued

477814. UNA 8348. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-378.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477815. UNA 8349. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-379.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477816. UNA 8350. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-383.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477817. UNA 8352. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-399.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477818. UNA 8353. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-488.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477819. UNA 8355. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-497.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477820. UNA 8356. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-499.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477821. UNA 8357. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-450.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477822. UNA 8358. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-502.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477823. UNA 8359. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-503.  
Six row naked type. Local name Ccala cebada. Cultivated.  
Seed.
477824. UNA 8360. Peru. Lat. 15 deg. S, Long. 70 deg. W.  
Huancane, Puno. Other identification 33-Vilquechico-505.

477763 TO 477862-continued

- Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477825. UNA 8361. Peru. Lat. 15 deg. S, Long. 70 deg. W. Huancane, Puno. Other identification 33-Vilquechico-510. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477826. UNA 8362. Peru. Lat. 15 deg. S, Long. 70 deg. W. Huancane, Puno. Other identification 33-Vilquechico-517. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477827. UNA 8363. Peru. Lat. 15 deg. S, Long. 70 deg. W. Huancane, Puno. Other identification 33-Vilquechico-529. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477828. UNA 8364. Peru. Lat. 15 deg. S, Long. 70 deg. W. Huancane, Puno. Other identification 33-Vilquechico-533. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477829. UNA 8365. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-6. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477830. UNA 8366. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-7. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477831. UNA 8367. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-9. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477832. UNA 8368. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-10. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477833. UNA 8369. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-12. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477834. UNA 8370. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-13. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477835. UNA 8371. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-15. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477836. UNA 8372. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 23-Caritimaya-17. Six row naked type.

477763 TO 477862-continued

- Local name Ccala cebada. Cultivated. Seed.
477837. UNA 8374. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno.  
Other identification 23-Caritimaya-41. Six row naked type.  
Local name Ccala cebada. Cultivated. Seed.
477838. UNA 8375. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno.  
Other identification 23-Caritimaya-43. Six row naked type.  
Local name Ccala cebada. Cultivated. Seed.
477839. UNA 8376. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno.  
Other identification 23-Caritimaya-44. Six row naked type.  
Local name Ccala cebada. Cultivated. Seed.
477840. UNA 8377. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno.  
Other identification 23-Caritimaya-48. Six row naked type.  
Local name Ccala cebada. Cultivated. Seed.
477841. UNA 8378. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno.  
Other identification 23-Caritimaya-50. Six row naked type.  
Local name Ccala cebada. Cultivated. Seed.
477842. UNA 8379. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno.  
Other identification 23-Caritimaya-54. Six row naked type.  
Local name Ccala cebada. Cultivated. Seed.
477843. UNA 8380. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno.  
Other identification 28-Huata-24. Six row naked type.  
Local name Ccala cebada. Cultivated. Seed.
477844. UNA 8381. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno.  
Other identification 28-Huata-26. Six row naked type.  
Local name Ccala cebada. Cultivated. Seed.
477845. UNA 8382. Bolivia. Other identification 3-Poopo-12. Six  
row naked type. Local name Ccala cebada. Cultivated. Seed.
477846. UNA 8383. Bolivia. Other identification 3-Poopo-13. Six  
row naked type. Local name Ccala cebada. Cultivated. Seed.
477847. UNA 8384. Bolivia. Other identification 3-Poopo-15. Six  
row naked type. Local name Ccala cebada. Cultivated. Seed.
477848. UNA 8385. Bolivia. Other identification 3-Poopo-16. Six  
row naked type. Local name Ccala cebada. Cultivated. Seed.
477849. UNA 8386. Bolivia. Other identification 3-Poopo-27. Six  
row naked type. Local name Ccala cebada. Cultivated. Seed.
477850. UNA 8387. Peru. Lat. 9 deg. S, Long. 78 deg. W. Other  
identification Huari-22. Six row naked type. Local name  
Ccala cebada. Cultivated. Seed.

477763 TO 477862-continued

477851. UNA 8388. Peru. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477852. UNA 8389. Peru. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477853. UNA 8390. Peru. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477854. UNA 8392. Peru. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477855. UNA 8396. Peru. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477856. UNA 8399. Peru. Lat. 15 deg. S, Long. 70 deg. W. Puno. Other identification 1-Vinto-23. Six row type. Local name Cebada. Cultivated. Seed.
477857. UNA 8408. Bolivia. Other identification Guaqui-12. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477858. UNA 8409. Bolivia. Other identification Guaqui-13. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477859. UNA 8410. Bolivia. Other identification Guaqui-14. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477860. UNA 8411. Bolivia. Other identification Guaqui-15. Six row naked type. Local name Ccala cebada. Cultivated. Seed.
477861. UNA 8461. Peru. Lat. 13 deg. S, Long. 73 deg. W. Anta, Cusco. Other identification Anta-511. Six row type. Local name Cebada. Cultivated. Seed.
477862. Jose Alberto Zapata. Cultivated. Seed.

477863 TO 477902. *Triticum aestivum* L. (Poaceae) Common wheat.

From Peru. Collected by M. Romero Loli; Programa de Cereales, Universidad Nacional Agraria, La Molina; Lima 14. Code numbers refer to Universidad Nacional Agraria Wheat Germplasm Bank.  
Received April 1983.

477863. PLT 76-1925. Peru. Lat. 9 deg. S, Long. 78 deg. W. Catac, Ancash. Local name Trigo. Cultivated. Seed.
477864. PLT 76-1926. Peru. Lat. 9 deg. S, Long. 78 deg. W. Catac, Ancash. Local name Trigo. Cultivated. Seed.

477863 TO 477902-continued

477865. PLT 76-1927. Peru. Lat. 9 deg. S, Long. 78 deg. W. Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477866. PLT 76-1928. Peru. Lat. 9 deg. S, Long. 78 deg. W. Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477867. PLT 76-1931. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477868. PLT 76-1933. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477869. PLT 76-1934. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477870. PLT 76-1935. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477871. PLT 76-1936. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477872. PLT 76-1939. Peru. Lat. 13 deg. S, Long. 73 deg. W. Acomayo, Cusco. Local name Trigo. Cultivated. Seed.
477873. PLT 76-1940. Peru. Lat. 13 deg. S, Long. 73 deg. W. Calca, Cusco. Local name Trigo. Cultivated. Seed.
477874. PLT 76-1941. Peru. Lat. 13 deg. S, Long. 73 deg. W. Calca, Cusco. Local name Trigo. Cultivated. Seed.
477875. PLT 76-1942. Peru. Lat. 9 deg. S, Long. 78 deg. W. Chavin, Ancash. Local name Trigo. Cultivated. Seed.
477876. PLT 76-1943. Peru. Lat. 9 deg. S, Long. 78 deg. W. Chiquian, Ancash. Local name Trigo. Cultivated. Seed.
477877. PLT 76-1944. Peru. Lat. 9 deg. S, Long. 78 deg. W. San Marcos, Ancash. Local name Trigo. Cultivated. Seed.
477878. PLT 76-1946. Peru. Lat. 9 deg. S, Long. 78 deg. W. San Luis, Ancash. Local name Trigo. Cultivated. Seed.
477879. PLT 76-1947. Peru. Lat. 9 deg. S, Long. 78 deg. W. San Luis, Ancash. Local name Trigo. Cultivated. Seed.
477880. PLT 76-1948. Peru. Lat. 9 deg. S, Long. 78 deg. W. San Luis, Ancash. Local name Trigo. Cultivated. Seed.
477881. PLT 76-1949. Peru. Lat. 9 deg. S, Long. 78 deg. W. San Luis, Ancash. Local name Trigo. Cultivated. Seed.
477882. PLT 76-1950. Peru. Lat. 9 deg. S, Long. 78 deg. W. San



477863 TO 477902-continued

- Luis, Ancash. Local name Trigo. Cultivated. Seed.
477883. PLT 76-1951. Peru. Lat. 9 deg. S, Long. 78 deg. W. San Luis, Ancash. Local name Trigo. Cultivated. Seed.
477884. PLT 76-1952. Peru. Lat. 9 deg. S, Long. 78 deg. W. Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477885. PLT 76-1953. Peru. Lat. 9 deg. S, Long. 78 deg. W. Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477886. PLT 76-1954. Peru. Lat. 9 deg. S, Long. 78 deg. W. Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477887. PLT 76-1955. Peru. Lat. 9 deg. S, Long. 78 deg. W. Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477888. PLT 76-1956. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477889. PLT 76-1957. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477890. PLT 76-1958. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477891. PLT 76-1959. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477892. PLT 76-1960. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477893. PLT 76-1961. Peru. Lat. 11 deg. S, Long. 76 deg. W. Yanamarca, Junin. Local name Trigo. Cultivated. Seed.
477894. PLT 76-1975. Peru. Lat. 13 deg. S, Long. 73 deg. W. Calca, Cusco. Local name Trigo. Cultivated. Seed.
477895. PLT 76-1976. Peru. Lat. 13 deg. S, Long. 73 deg. W. Calca, Cusco. Local name Trigo. Cultivated. Seed.
477896. PLT 76-1985. Peru. Lat. 9 deg. S, Long. 78 deg. W. Chiquian, Ancash. Local name Trigo. Cultivated. Seed.
477897. PLT 76-1986. Peru. Lat. 9 deg. S, Long. 78 deg. W. Chiquian, Ancash. Local name Trigo. Cultivated. Seed.
477898. PLT 76-1998. Peru. Lat. 9 deg. S, Long. 78 deg. W. San Marcos, Ancash. Local name Trigo. Cultivated. Seed.
477899. PLT 76-2017. Peru. Lat. 9 deg. S, Long. 78 deg. W. San Luis, Ancash. Local name Trigo. Cultivated. Seed.

477863 TO 477902-continued

477900. PLT 76-2031. Peru. Lat. 9 deg. S, Long. 78 deg. W.  
Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477901. PLT 76-2049. Peru. Lat. 9 deg. S, Long. 78 deg. W.  
Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477902. PLT 76-2072. Peru. Lat. 9 deg. S, Long. 78 deg. W.  
Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.

477903 TO 477911. *Triticum durum* Desf. (Poaceae) Durum wheat.

From Peru. Collected by M. Romero Loli; Programa de Cereales,  
Universidad Nacional Agraria, La Molina; Lima 14. Code  
numbers refer to Universidad Nacional Agraria Wheat  
Germplasm Bank.  
Received April 1983.

477903. PLT 76-1923. Peru. Lat. 9 deg. S, Long. 78 deg. W.  
Chiquian, Ancash. Local name Trigo. Cultivated. Seed.
477904. PLT 76-1929. Peru. Lat. 9 deg. S, Long. 78 deg. W.  
Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477905. PLT 76-1930. Peru. Lat. 9 deg. S, Long. 78 deg. W.  
Carhuaz, Ancash. Local name Trigo. Cultivated. Seed.
477906. PLT 76-1974. Peru. Lat. 13 deg. S, Long. 73 deg. W.  
Calca, Cusco. Local name Trigo. Cultivated. Seed.
477907. PLT 76-1982. Peru. Lat. 13 deg. S, Long. 73 deg. W.  
Calca, Cusco. Local name Trigo. Cultivated. Seed.
477908. PLT 76-1983. Peru. Lat. 9 deg. S, Long. 78 deg. W.  
Chavin, Ancash. Local name Trigo. Cultivated. Seed.
477909. PLT 76-1997. Peru. Lat. 9 deg. S, Long. 78 deg. W. San  
Marcos, Ancash. Local name Trigo. Cultivated. Seed.
477910. PLT 76-2000. Peru. Lat. 9 deg. S, Long. 78 deg. W. San  
Marcos, Ancash. Local name Trigo. Cultivated. Seed.
477911. Estaquilla. Cultivated. Seed.

477912 TO 477914. *Amaranthus cruentus* L. (Amaranthaceae).

From United States. Donated by C.S. Kauffman; Rodale Research  
Center; Kutztown, Pennsylvania.  
Received September 1982.

477912. 81S-416. Mexico. Collected 1979. Morelos, Huazulco.

477912 TO 477914-continued

Collected by L. Feine. Grain type. Stems and petioles red. Leaves and flowers green. Susceptible to Lygus. Landrace. Seed.

477913. 81S-1011. Mexico. Selected from RRC 362. Grain type from segregating bulk population. Yields high. Performs well at high plant densities. Slightly susceptible to Lygus. Landrace. Seed.

477914. 81S-1041. Mexico. Selected from RRC 362. Grain type from segregating bulk population. Seeds white. Yields high. Seed heads red and green. Landrace. Seed.

477915 TO 477917. *Amaranthus hypochondriacus* L. (Amaranthaceae).

From United States. Donated by C.S. Kauffman; Rodale Research Center; Kutztown, Pennsylvania.  
Received September 1982.

477915. 81S-1008. India. Selected from RRC 84. Nepal grain type. Yields excellent. Maturity late but earliest of nepal grain types. Lodging tendency. Cultivated. Seed.

477916. 81S-1023. Mexico. Selected from RRC 362. Mercado grain type. Yields high. Seed quality excellent. Adapted to mechanical harvest. Lodging resistant. Landrace. Seed.

477917. 80S-1024. Mexico. Selected from RRC 362. Mercado grain type. Morphology similar to 81S-1023. Yields high. Seed gold-colored. Imparts pleasant color to baked goods. May be used as flour mixed with corn flour products. Landrace. Seed.

477918. *Amaranthus tricolor* L. (Amaranthaceae).

From United States. Donated by C.S. Kauffman; Rodale Research Center; Kutztown, Pennsylvania.  
Received September 1982.

A-701. Tsang & Ma Internatl. Seed Co., Belmont, Calif. Origin unknown possibly China. Tiger leaf vegetable type. Yields high. Leaves green and red variegated. Landrace. Seed.

477919. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by M. Wilson; Department of Agronomy and Soils, Washington State University; Pullman, Washington.  
Received May 1983.

477919-continued

WA 6831. United States. WA 6021/Potam 70 Sel. No. 181. Plants semi-dwarf, lodging resistant, high yielding. Seeds soft, white, ovate. Chaff white. Seedlings susceptible, adult plants resistant to stripe rust. Resistant to leaf rust. Susceptible to mildew, some races of common bunt, and to Hessian fly. Milling and baking quality properties satisfactory. Other identification K 7905209. Annual. Cultivar. Seed.

477920 TO 477922. *Lens culinaris* Medik. (Fabaceae) Lentil.

From United States. Donated by F.J. Muehlbauer; Grass and Legume Breeding and Production Research, USDA, Washington State University; Pullman, Washington. Received through R.M. Hannan, Western Regional Plant Introduction Station, Pullman.  
Received March 1983.

477920. Chilean 78. United States. Commercially produced in Pacific Northwest. Plants tall, 39cm. Leaves medium size. Tendrils single. Cotyledons yellow. Cultivar. Seed.

477921. Red chief. United States. Commercially produced in Pacific Northwest. Plants tall, 35cm. Leaves medium size. Tendrils single. Cotyledons red. Cultivar. Seed.

477922. Tekoa. United States. Commercially produced in Palouse region, eastern Washington and western Idaho. Plants tall, 35cm. Leaves large. Tendrils single. Blooms 55-60 days. Cotyledons yellow, edges sharp. Cultivar. Seed.

477923. *Lens* hybrid (Fabaceae).

From United States. Donated by F.J. Muehlbauer; Grass & Legume Breeding and Production Research, USDA, Washington State University; Pullman, Washington. Received through R.M. Hannan, Western Regional Plant Introduction Station, Pullman.  
Received March 1983.

Brewer. United States. *Lens nigricans* x *Lens culinaris*. Commercially produced in Pacific Northwest. Plants tall, 40cm. Leaves medium size. Tendrils single. Cotyledons yellow. Cultivar. Seed.

477924. *Krascheninnikovia ceratoides* (L.) Gueldenst. (Chenopodiaceae) Pamirian winterfat.

From United States. Donated by J.H. Robertson; Knudtsen Renewable

477924-continued

Resources Center, University of Nevada; Reno, Nevada.  
Received February 1983.

T-28608. Soviet Union. Collected October 1982. Washo Lake, State Forestry nursery, Nevada. Shrub woody, large. Drought and salt resistant. Cultivated. Seed.

477925 TO 477926. *Zea mays* L. (Poaceae) Field corn.

From China, Peoples Repub of. Donated by Department of Agriculture, Beijing Agricultural University; Beijing.  
Received December 1982.

477925. Bei 711-2. China, Peoples Repub of. Cultivated. Seed.

477926. Yien. China, Peoples Repub of. Cultivated. Seed.

477927 TO 477928. *Lupinus arbustus* subsp. *neolaxiflorus* D. Dunn (Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USDA, Regional Plant Introduction Station, Washington State University; Pullman, Washington.  
Received November 1981.

477927. D&S 29. United States. Collected July 07, 1971. Hwy 218, 8km west of John Day river crossing, Oregon. 900m. Plants growing with sage brush, bottle brush, cheat grass, rabbit brush and yarrow. Plants glabrous. Flowers blue. Wild. Seed.

477928. D&S 52. United States. Hwy 97, 6.4km south of Shaniko, at Snowcap Identifier turnout, Oregon. 990m. Plants growing with sage brush, aster, bottle brush and sneeze weed. Plants medium tall. Flowers blue. Wild. Seed.

477929 TO 477931. *Lupinus argenteus* subsp. *argenteus* var. *tenellus* (Dougl. ex G. Don) D. Dunn (Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USDA, Regional Plant Introduction Station, Washington State University; Pullman, Washington.  
Received November 1981.

477929. D&S 36. United States. Collected July 07, 1971. Ashwood Rd, 4.8km east of Madras, Oregon. 90m. Plants growing with three awn, juniper, sage brush and cheat grass. Plants pubescent. Flowers blue. Wild. Seed.

477930. D&S 39. United States. Collected July 07, 1971. Grizzley

477929 TO 477931-continued

Mtn Rd, 20.8km from Madras, 1.6km N of Hay Creek Ranch Hdqtrs, Oreg. 450m. Near reservoir, growing with sage brush, cheat grass, and juniper. Plants tall, glabrous. Perennial Herb. Wild. Seed.

477931. D&S 43. United States. Collected July 08, 1971. Disturbed area, hwy 26, 3.2km north of Prineville, Oregon. 900m. Plants growing with sage brush, cheat grass, widely scattered juniper. Plants tall, glabrous. Wild. Seed.

477932 TO 477934. *Lupinus aridus* Dougl. ex Lindl. (Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USCA, Regional Plant Introduction Station, Washington State University; Pullman, Washington. Received November 1981.

477932. D&S 16. United States. Collected July 07, 1971. Hwy 207, above the John Day river, 1.6km west of Spray, Oregon. 555m. Plants growing with juniper, sage brush, rabbit brush, and cheat grass. Plants short. Leaves fine. Flowers blue. Wild. Seed.

477933. D&S 37. United States. Collected July 07, 1971. Ashwood Rd, 9.6km east of Madras, Oregon. 900m. Plants growing with juniper, sage brush, and three awn. Plants small, puberulent. Flowers blue. Wild. Seed.

477934. D&S 47. United States. Collected July 08, 1971. Hwy 207, 19.2km from Mitchell towards Service Creek, Oregon. 900m. Plants growing with sage brush, juniper, and rabbit brush. Wild. Seed.

477935. *Lupinus caudatus* Kell. (Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USDA, Regional Plant Introduction Station, Washington State University; Pullman, Washington. Received November 1981.

D&S 41. United States. Collected July 07, 1971. Grizzley Mtn Rd, 20.8km from Madras, 1.6km N of Hay Creek Ranch Hdqtrs, Oreg. 450m. Near reservoir, growing with sage brush, cheat grass, and juniper. Plants short. Annual. Wild. Seed.

477936. *Lupinus caudatus* Kell. subsp. *caudatus* (Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USDA, Regional Plant Introduction Station, Washington State

**477936-continued**

University; Pullman, Washington.  
Received November 1981.

D&S 48. United States. Collected July 09, 1971. Hwy 26, 16km east of John Day river, Oregon. 1050m. Plants growing with rabbit brush, cheat grass, sage brush, and medusa head. Wild. Seed.

**477937. *Lupinus leucophyllus* var. *belliae* C. P. Sm. (Fabaceae).**

From United States. Collected by A.M. Davis and D.M. Stout; USDA, Regional Plant Introduction Station, Washington State University; Pullman, Washington.  
Received November 1981.

D&S 1. United States. Collected July 07, 1971. Dry hillside, hwy 207, 3.2km south of Heppner, Oregon. 240m. Plants growing with sego lily, oatgrass, *Aristida*, *Achillea*, *Artemisia*, and *Gutierrezia*. Plants hirsute, silvery-gray. Wild. Seed.

**477938 TO 477946. *Lupinus leucophyllus* Dougl. ex Lindl. (Fabaceae).**

From United States. Collected by A.M. Davis and D.M. Stout; USDA, Regional Plant Introduction Station, Washington State University; Pullman, Washington.  
Received November 1981.

477938. D&S 5. United States. Collected July 07, 1971. Sanford Canyon Rd, 4.8km off Hwy 207, 6.4km east of Rhea Creek Rd, Oregon. 300m. Upland clay pan prairie. Plants growing with storksbill, *Aristida*, *Gutierrezia*, *Achillea*, and *Bromus tectorum*. Plants short, hirsute. Flowers blue. Wild. Seed.

477939. D&S 8. United States. Collected July 07, 1971. Upper Rhea Creek Rd, 17.6km east of Hwy 207, south of Heppner, Oregon. 300m. Plants growing with yarrow, sage brush, sego lily, mullen, blue flax, cheat grass, and blue grass. Plants short, hirsute. Leaves small. Pods 2-3 seeded. Wild. Seed.

477940. D&S 10. United States. Collected July 07, 1971. Upper Rhea Creek Rd, 27.2km east of Hwy 207, south of Heppner, Oregon. 240m. Base of basalt ledge, growing with *Crataegus*, medusa head, cheat grass, *Briza maxima*, *Aristida*, rabbit brush, and Canada wildrye. Plants puberulent, blue-gray. Flowers blue. Wild. Seed.

477941. D&S 11. United States. Collected July 07, 1971. Hwy 207, 11.2km south of Ruggs, Oregon. 450m. Plants growing with

477938 TO 477946-continued

three awn, cheat grass, and rabbit brush. Plants puberulent, blue-gray. Flowers blue. Approaching var. *canescens*. Wild. Seed.

477942. D&S 21. United States. Collected July 07, 1971. Disturbed site at fossil beds, Fossil, Oregon. 795m. Plants growing with sage brush, cheat grass and Salsify. Plants short, puberulent. Flowers rose-colored. Wild. Seed.

477943. D&S 81. United States. Collected August 05, 1971. Riverside jct, 17.6km from Conconully to Omak, Washington. 600m. Abandoned field now in pasture. Growing with Segolily, rabbit brush, sage brush, and Plantago. Plants tall, pubescent. Flowers blue. Wild. Seed.

477944. D&S 82. United States. Collected August 05, 1971. Old field, now pasture, rd to Riverside, 20.8km from Conconully, Washington. 600m. Plants growing with rabbit brush, sage brush, knapweed, and yarrow. Plants tall, pubescent. Flowers blue, late. Wild. Seed.

477945. D&S 85. United States. Collected August 06, 1971. Hwy 30, 1.6km from Republic to Tonasket, Washington. 750m. Plants growing with rabbit brush and sage brush. Plants medium height, pubescent. Flowers blue. Wild. Seed.

477946. D&S 97. United States. Collected August 15, 1971. Rocky, bitterroot river bench, 4.8km S of Stephenville jct, Hwy 93, Montana. Pasture. Plants growing with cottonwood, ponderosa pine, aspen, and knapweed. Plants medium height, pubescent. Flowers blue, late. Wild. Seed.

477947. *Lupinus leucophyllus* Dougl. ex Lindl. var. *leucophyllus* (Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USDA, Regional Plant Introduction Station, Washington State University; Pullman, Washington.  
Received November 1981.

D&S 4. United States. Collected July 07, 1971. Sanford Canyon Rd, 1.6km east of Hwy 207, 6.4km E of Rhea Creek Rd, Oregon. 300m. Plants growing with teasel, *Achillea*, *Aristida*, and *Bromus tectorum*. Plants medium tall, hirsute, gray. Flowers blue. Wild. Seed.

477948. *Lupinus littoralis* Dougl. ex Lindl. (Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USDA, Regional Plant Introduction Station, Washington State



477948-continued

University; Pullman, Washington.  
Received November 1981.

D&S 96. United States. Collected August 09, 1971.  
Coastal dune, Ona beach Hwy 101, south of Newport, Oregon.  
Salt tolerant. Wild. Seed.

477949 TO 477950. *Lupinus sericeus* var. *egglestonianus* C. P. Sm.  
(Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USDA,  
Regional Plant Introduction Station, Washington State  
University; Pullman, Washington.  
Received November 1981.

477949. D&S 56. United States. Collected August 04, 1971. North  
of Waterville, Washington, 12.8km, after turn. 840m.  
Reseeded hillside of crested wheat. Plants small,  
puberulent, grayish. Wild. Seed.

477950. D&S 83. United States. Collected August 06, 1971. From  
Republic to Tonasket, 1.6km, Washington. 750m. Plants  
growing with rabbit brush and sage brush. Plants medium  
height, pubescent. Flowers blue. Wild. Seed.

477951 TO 477953. *Lupinus sericeus* var. *flexuosus* (Lindl. ex Agardh) C.  
P. Sm. (Fabaceae).

From United States. Collected by A.M. Davis and D.M. Stout; USDA,  
Regional Plant Introduction Station, Washington State  
University; Pullman, Washington.  
Received November 1981.

477951. D&S 78. United States. Collected August 05, 1971.  
Roadside above Lake Conconully, 1.6km from Conconully,  
Washington. 600m. Plants growing with ponderosa pine,  
spruce, and fir. Plants medium height, puberulent.  
Flowers blue. Wild. Seed.

477952. D&S 86. United States. Collected August 06, 1971. Hwy  
30, 32km from Tonasket to Republic, Washington. 900m.  
Plants growing with ponderosa pine. Plants medium height,  
glabrous. Flowers blue. Wild. Seed.

477953. D&S 89. United States. Collected August 06, 1971. Jct  
Swamp Creek Rd and Hwy 30, 40km west of Republic,  
Washington. 900m. Plants growing with fir and prostrate  
*Ceanothus*. Plants medium height, glabrous. Flowers blue.  
Wild. Seed.

**477954. *Triraphis schinzii* Hack. (Poaceae).**

From South Africa. Collected by Botanical Research Unit,  
Department of Agricultural Technical Services; Durban -  
4001.

Received June 1983.

South Africa. Collected March 24, 1983. Eastern shores  
of St. Lucia, Natal. Plants not common. Wild. Seed.

**477955. *Ammophila breviligulata* Fern. (Poaceae) American beachgrass.**

From United States. Donated by Cape May Plant Materials Center,  
Soil Conservation Service, USDA; Cape May Courthouse, New  
Jersey. Received through National Plant Materials Center,  
SCS, Beltsville, MD.

Received March 1983.

T 2679. United States. Collected October 05, 1957.  
Dunes, Point of Cape Henlopen, Lewes, Delaware. Collected  
by R. Thornton and T. Spaller. Perennial Herb. Wild. Seed.

**477956. *Echinochloa walteri* (Pursh) Heller (Poaceae).**

From United States. Donated by Cape May Plant Materials Center,  
Soil Conservation Service, USDA; Cape May Courthouse, New  
Jersey. Received through National Plant Materials Center,  
SCS, Beltsville, MD.

Received March 1983.

T 16797. United States. Collected October 1967. Dewey  
Beach, Delaware. Perennial Herb. Wild. Seed.

**477957. *Bothriochloa barbinodis* var. *perforata* (Trin. ex Fourn.) Gould  
(Poaceae).**

From United States. Donated by Knox City Plant Materials Center,  
Soil Conservation Service, USDA; Knox City, Texas.

Received through National Plant Materials Center, SCS,  
Beltsville, MD.

Received March 1983.

T 16675. Tilden, Texas. Tested as PMT-1055. Received as  
*Andropogon perforatus*. Perennial Herb. Cultivated. Seed.

**477958. *Bothriochloa ischaemum* (L.) Keng var. *ischaemum* (Poaceae)  
Yellow bluestem.**

From United States. Donated by Knox City Plant Materials Center,  
Soil Conservation Service, USDA; Knox City, Texas.

477958-continued

Received through National Plant Materials Center, SCS,  
Beltsville, MD.

Received March 1983.

T 9479. 'Plains'. United States. Collected March 1979.  
Oklahoma State University. Collected by C. Taliferro.  
Used as pasture and range forage. Perennial Herb.  
Cultivar. Seed.

477959 TO 477960. *Bouteloua gracilis* (Willd. ex H.B.K.) Lag. ex  
Griffiths (Poaceae) Blue grama.

From United States. Donated by Knox City Plant Materials Center,  
Soil Conservation Service, USDA; Knox City, Texas.

Received through National Plant Materials Center, SCS,  
Beltsville, MD.

Received March 1983.

477959. T 8231. United States. Collected March 1964. Aspermont,  
Texas. Collected by M. Brown on C. A. Greer Ranch.  
Multiple use conservation plant for forage and  
revegetating alkaline soils. Perennial Herb. Cultivated.  
Cultivar. Seed.

477960. T 8232. United States. Collected October 1966. Oklahoma.  
Composite of seed from Waurika, Walters, Duncan and  
Lawton Counties. Multiple use conservation plant for  
forage and revegetation of alkaline soils. Perennial Herb.  
Cultivated. Cultivar. Seed.

477961. *Desmanthus velutinus* Scheele (Fabaceae) Velvet bundleflower.

From United States. Donated by Knox City Plant Materials Center,  
Soil Conservation Service, USDA; Knox City, Texas.

Received through National Plant Materials Center, SCS,  
Beltsville, MD.

Received March 1983.

T 8234. United States. Collected 1969. Hondo, Texas.  
Multiple use conservation plant for range, wildlife food  
and cover. Perennial Herb. Cultivated. Seed.

477962. *Engelmannia pinnatifida* Torr. & A. Gray (Asteraceae) Engelmann  
daisy.

From United States. Donated by Knox City Plant Materials Center,  
Soil Conservation Service, USDA; Knox City, Texas.

Received through National Plant Materials Center, SCS,  
Beltsville, MD.

Received March 1983.

477962-continued

T 7214. United States. Collected 1964. Northwest of Eldorado, Texas, near T. P. Robinson farm. Collected by W. H. Roundtree. Multiple use conservation plant for range wildlife, ornamental. High protein content and palatability. Attractive flowers and foliage. Perennial Herb. Cultivated. Seed.

477963 TO 477964. *Indigofera miniata* var. *leptosepala* (Nutt.) Turner (Fabaceae) Western Indigo.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

477963. T 4134. United States. Collected January 1966. Knox City, Texas. Collected by A. Davis. Multiple use conservation plant for cover crop, pasture, range. Perennial Herb. Cultivated. Seed.

477964. T 4135. United States. Collected 1970. Sandy loam. Beeville, Texas. Collected by B. Bates. Multiple use conservation plant for range, pasture, cover. Adapted to sandy soils. Roots deep. Perennial Herb. Cultivated. Seed.

477965 TO 477966. *Juglans microcarpa* Berland (Juglandaceae) Little walnut.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

477965. T 13187. United States. Collected February 1970. Big Creek, Hayes, Kansas. Multiple use conservation plant for windbreaks, wildlife, ornamental. Tree. Cultivated. Seed.

477966. T 13188. United States. Collected February 1970. Carter, Oklahoma. Multiple use conservation plant for windbreaks, wildlife, ornamental. Tree. Cultivated. Seed.

477967. *Menodora longiflora* (Engelm.) Gray (Oleaceae) Showy menodora.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD.

477967-continued

Received March 1983.

T 8240. United States. Collected July 02, 1964. Zapata soil, near dump on northwest edge of Bracketville, Texas. Collected by W. G. Lindley. Shallow ridge range site. Multiple use conservation plant for range and browse on the Edwards Plateau and in the Trans-Pecos area. Very palatable forage, excellent deer browse. Perennial Woody. Cultivated. Seed.

477968. *Pavonia lasiopetala* Scheele (Malvaceae) Wright's pavonia.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 11309. United States. Collected February 02, 1967. Collected by M. Mauldin. Multiple use conservation plant for browse and ornamental. Perennial Woody. Cultivated. Plants.

477969. *Prunus minutiflora* Engl. (Rosaceae) Smallflower peachbush.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 8243. Collected May 1965. Falfurrias, Texas. Collected by W. A. Watson on Mills Bennett Ranch, sixteen miles of Falfurrias on the south side of Tajitos pasture. Nueces fine sand, a deep sand. Multiple use conservation plant for wildlife food and cover. Perennial Woody. Cultivated. Seed.

477970. *Prunus texana* Dietr. (Rosaceae) Texas peachbush.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 22851. United States. Collected July 15, 1964. FM 2169 right-of-way, Little Mexico Addition, Junction, Texas. Collected by S. H. Coleman. Rocky range. Multiple use conservation plant for wildlife food and cover. Perennial

477970-continued

Woody. Cultivated. Seed.

477971. *Simsia calva* (A. Gray & Engelm.) A. Gray (Asteraceae) Bush sunflower.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 7218. United States. Collected June 02, 1964. Junction, Texas. Collected by S. H. Coleman, 32.3km from Junction, Texas on U.S. 83 right-of-way 2.2km south of Kimble-Kerr County line. Tarrant shallow clay-Uvalde shallow clay complex, low stony hill. Very palatable deer browse, relished by cattle and birds. Adapted to central, southern, western Texas. Perennial Herb. Cultivated. Seed.

477972. *Viguiera stenoloba* Blake (Asteraceae).

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 1913. United States. Collected January 28, 1977. Knox City PMC, Texas. Composite of six superior accessions. Highly valued browse plant for west Texas and New Mexico. Perennial Herb. Cultivated. Plants.

477973 TO 477974. *Andropogon hallii* Hack. (Poaceae) Sand bluestem.

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

477973. T 16673. 'Santana'. Santa Ana Indian Reservation, Bernalillo, New Mexico. Perennial Herb. Cultivar. Seed.

477974. T 16674. Collected 1956. Hudson, New Mexico. Tested as NM-12. Genetic Material. Seed.

477975. *Calamovilfa longifolia* (Hook.) Scribn. (Poaceae) Prairie

477975-continued  
sandreed.

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 6698. Eads. Between Eads and Kit Carson, Colorado.  
Perennial Herb. Cultivated. Seed.

477976. *Cercocarpus montanus* Raf. (Rosaceae).

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received March 1983.

T 4517. 'Montane'. United States. Collected October 1964.  
Coyote, New Mexico. Released in 1978. Multiple use  
conservation plant: windbreaks, mine spoil reclamation,  
wildlife browse, ornamental. Salt tolerant. Establishment  
erratic, but most stands superior to other accessions  
tested. Perennial Woody. Cultivar. Seed.

477977. *Chilopsis linearis* (Cav.) Sweet (Bignoniaceae) Desertwillow.

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 4520. 'Barranco'. United States. Texas. Released in  
1977. Multiple use conservation plant: windbreaks,  
screen, ornamental. Good heat tolerance, lower water  
requirements than most commercially available shrubs and  
trees. Perennial Woody. Cultivar. Seed.

477978. *Koeleria cristata* (L.) Pers. (Poaceae).

From United States. Donated by Los Lunas Plant Materials Center,  
Soil Conservation Service, USDA; Los Lunas, New Mexico.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 8313. United States. Pagosa Springs, Colorado. 2700m.  
Tested as C-47. Perennial Herb. Wild. Seed.

**477979. Muhlenbergia montana (Nutt.) Hitchc. (Poaceae).**

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 4707. United States. Collins Park, New Mexico. 2600m. Tested as NM-216. Perennial Herb. Wild. Seed.

**477980. Penstemon strictus Benth. (Scrophulariaceae).**

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 4712. 'Bandera'. United States. Collected August 1964. New Canyon Campground, Cibola National Forest, Mountainair, New Mexico. Released in 1973. Groundcover erosion control plant on roadsides. Good ornamental with abundant, colorful flowers. Perennial Woody. Cultivar. Seed.

**477981. Rhus aromatica var. serotina (Greene) Rehd. (Anacardiaceae)  
Aromatic sumac.**

From United States. Donated by Manhattan Plant Materials Center, Soil Conservation Service, USDA; Manhattan, Kansas. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 4404. Konza. United States. Collected 1958. Riley County, Kansas. Released in 1980. Multiple use conservation plant: windbreaks, cover on droughty soils, screens from noise and eyesores, wildlife food and cover, ornamental on highways and parks and as snow entrapment plant. Low incidence of leaf rust and insect damage. Drought tolerant. Perennial Woody. Cultivar. Seed.

**477982 TO 477984. Alopecurus pratensis L. (Poaceae) Meadow foxtail.**

From United States. Donated by National Plant Materials Center, Soil Conservation Service, USDA; Beltsville, Maryland. Received March 1983.

477982. T 11331. Maturity late. Polycross selection. Perennial Herb. Cultivated. Seed.



477982 TO 477984-continued

477983. T 11332. Polycross selection. Perennial Herb. Cultivated. Seed.

477984. T 12020. Polycross selection. Perennial Herb. Cultivated. Seed.

477985. *Alopecurus arundinaceus* Poir. (Poaceae) Creeping foxtail.

From United States. Donated by Pullman Plant Materials Center, Soil Conservation Service, USDA; Pullman, Washington. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 12019. 'P-14762'. Selection from PI 110067 and PI 110351 from USSR. Perennial Herb. Cultivar. Seed.

477986. *Malus sargentii* Rehder (Rosaceae) Sargent crabapple.

From United States. Donated by Rose Lake Plant Materials Center, Soil Conservation Service, USDA; East Lansing, Michigan. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 5026. 'Roselow'. Japan. Released in 1978. Multiple use conservation plant: windbreaks, wildlife food and cover, ornamental. Prolific fruit producer, fruit remains on plant into winter. Not an alternate host of juniper rust. Tree. Cultivar. Seed.

477987. *Bromus brevis* Nees ex Steud. (Poaceae).

From France. Donated by Institut National de la Recherche Agronomique; Versailles. Received through National Plant Materials Center, SCS, Beltsville, MD. Code numbers refer to Index Seminum 1970-71. Received June 1982.

937. Uruguay. SCS, Beltsville, MD. T 16714. Perennial Herb. Seed.

477988. *Bromus brachyanthera* subsp. *uruguayensis* (Arech.) Roseng., Arr., & Izag. (Poaceae).

From France. Donated by Institut National de la Recherche Agronomique; Versailles. Received through National Plant Materials Center, SCS, Beltsville, MD. Code numbers refer

477988-continued  
to Index Seminum 1970-71.  
Received June 1982.

974. France. SCS, Beltsville, MD. T 16750. Received as  
*Bromus uruguayensis*. Perennial Herb. Seed.

477989. *Dactylis marina* Borrill (Poaceae).

From France. Donated by Institut National de la Recherche  
Agronomique; Versailles. Received through National Plant  
Materials Center, SCS, Beltsville, MD. Code numbers refer  
to Index Seminum 1970-71.  
Received June 1982.

1004. France. SCS, Beltsville, MD. T 16789. Coastal  
cliffs. Perennial Herb. Wild. Seed.

477990. *Myrica cerifera* L. (Myricaceae).

From United States. Donated by Americus Plant Materials Center,  
Soil Conservation Service, USDA; Americus, Georgia.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 30592. United States. PI 431149/T 2058. Perennial  
Woody. Genetic Material. Seed.

477991. *Malva alcea* L. (Malvaceae).

From United States. Donated by Big Flats Plant Materials Center,  
Soil Conservation Service, USDA; Big Flats, New York.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 16065. United States. Collected August 1975. Westdale,  
Oneida County, New York. Collected by W. Oakes. Plants  
vigorous. Flowers last six weeks, peak in July. Resists  
lodging. Annual. Wild. Breeding Material. Seed.

477992. *Acer ginnala* Maxim. (Aceraceae).

From United States. Donated by Bismarck Plant Materials Center,  
Soil Conservation Service, USDA; Bismarck, North Dakota.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

477992-continued

T 5645. Canada. Collected September 1968. Collected by S. Dronen. Multiple use conservation plant: shelterbelts, wildlife cover, ornamental. Winter hardy. Drought tolerant. Tree. Cultivated. Seed.

477993. *Agropyron smithii* Rydb. (Poaceae) Western wheatgrass.

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 5659. United States. Collected July 1939. Mandan, North Dakota. Collected by G. A. Rogler. Potentially more cold tolerant than 'Arriba' and 'Rosana'. Outstanding in initial evaluation trials. Perennial Herb. Cultivated. Seed.

477994. *Andropogon gerardii* Vitm. (Poaceae) Big bluestem.

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 5667. United States. Collected 1957. Mandan, North Dakota. Collected by G. A. Rogler. May be better adapted to northern climates than commercially available cultivars. Perennial Herb. Cultivated. Seed.

477995. *Calamovilfa longifolia* (Hook.) Scribn. (Poaceae) Prairie sandreed.

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 5706. United States. Collected August 1956. North Dakota. Collected by F. Dekrey. Under test for surface mine reclamation and forage production. Perennial Herb. Cultivated. Seed.

477996 TO 477997. *Elymus angustus* Trin. (Poaceae) Altai wildrye.

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD.

477996 TO 477997-continued  
Received March 1983.

477996. T 5878. Canada. Collected October 1977. Collected by Paul Nyren. Good adaptability to northern climates. Perennial Herb. Cultivated. Seed.

477997. T 5879. United States. Collected July 1977. Bismarck, North Dakota. Collected by R. J. Haas. Good adaptability to northern climates. Perennial Herb. Cultivated. Seed.

477998. *Lonicera maackii* (Rupr.) Maxim. (Caprifoliaceae).

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD.  
Received March 1983.

T 5993. Canada. Collected September 1954. Collected by J. McDermand. Potential multiple use conservation plant: shelterbelt, wildlife habitat, ornamental. Perennial Woody. Cultivated. Seed.

477999. *Lonicera tatarica* L. (Caprifoliaceae).

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD.  
Received March 1983.

T 5996. *Sibirica*. United States. Collected April 1960. Cheyenne, Wyoming. Potential multiple use conservation plant: shelterbelt, wildlife habitat, ornamental. Winter hardy. Drought tolerant. Received as *Lonicera tatarica* var. *sibirica*. Perennial Woody. Cultivated. Cuttings.

478000. *Malus baccata* var. *mandshurica* (Maxim.) C. K. Schn. (Rosaceae).

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD.  
Received March 1983.

T 6003. 'Midwest'. China, Peoples Repub of. Collected 1920. Echo, Manchuria. Collected by A. F. Woeikoff. Released in 1973. Multiple use conservation plant: windbreaks, wildlife food and cover, screens, ornamental. Disease and insect resistant. Tree. Cultivar. Seed.

478001 TO 478002. *Panicum virgatum* L. (Poaceae) Switchgrass.

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

478001. T 6010. United States. Composite of SD-62, 203, 205 and 206. Collected August 1956. Forestburg, Sanborn County, South Dakota. Collected by J. D. McDermid. Potential use for surface mine reclamation and forage. Maturity early. Forage yield high. Perennial Herb. Cultivated. Seed.

478002. T 6011. United States. Collected May 1955. Hand County, North Dakota. Collected by G. A. Rogler. Potential multiple use conservation plant: surface mine reclamation and forage. Forage yield high. Perennial Herb. Cultivated. Seed.

478003. *Prunus fruticosa* Pall. (Rosaceae) European dwarf cherry.

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 6072. Canada. Collected September 1954. Collected by J. McDermid. Potential multiple use conservation plant: shelterbelt, wildlife habitat, ornamental. Cold and drought tolerant. Perennial Herb. Cultivated. Seed.

478004. *Pyrus ussuriensis* Maxim. (Rosaceae) Harbin pear.

From United States. Donated by Bismarck Plant Materials Center, Soil Conservation Service, USDA; Bismarck, North Dakota. Received through National Plant Materials Center, SCS, Beltsville, MD. Received March 1983.

T 6095. Canada. Collected September 1954. Research Station, Morden Manitoba. Collected by J.D. McDermid. Potential multiple use plant: shelterbelt, wildlife habitat, ornamental. Cold and drought tolerant. Tree. Cultivated. Seed.

478005. *Shepherdia argentea* (Pursh) Nutt. (Elaeagnaceae) Silver buffaloberry.

From United States. Donated by Bismarck Plant Materials Center,

478005-continued

Soil Conservation Service, USDA; Bismarck, North Dakota.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 6158. Canada. Collected September 1954. Research  
Station, Morden, Manitoba. Collected by J.D. McDermid.  
Potential multiple use conservation plant: wildlife  
habitat, shelterbelts, ornamental, critical area  
stabilization, surface mine reclamation. Perennial Woody.  
Cultivated. Seed.

478006. *Sorghastrum nutans* (L.) Nash (Poaceae) Indiangrass.

From United States. Donated by Bismarck Plant Materials Center,  
Soil Conservation Service, USDA; Bismarck, North Dakota.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 6216. United States. Composite of NP-343, SD-44, SD-56.  
Collected September 1961. Marshall County, South Dakota.  
Collected by J. D. McDermid. Selected for forage  
production and surface mine reclamation. Perennial Herb.  
Cultivated. Seed.

478007. *Stipa viridula* Trin. (Poaceae) Green needlegrass.

From United States. Donated by Bismarck Plant Materials Center,  
Soil Conservation Service, USDA; Bismarck, North Dakota.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 6224. United States. Collected August 1962. Fairburn,  
Custer County, South Dakota. Collected by J. D. McDermid.  
Purchased from Bober Seed Co. Potential use for surface  
mine reclamation and forage. Forage yield high. Perennial  
Herb. Cultivated. Seed.

478008. *Syringa reticulata* (Bl.) Hara (Oleaceae) Lilac.

From United States. Donated by Bismarck Plant Materials Center,  
Soil Conservation Service, USDA; Bismarck, North Dakota.  
Received through National Plant Materials Center, SCS,  
Beltsville, MD.  
Received March 1983.

T 6225. Canada. Collected May 1954. Research Station,  
Morden, Manitoba. Collected by J. D. McDermid. Potential

478008-continued

multiple use conservation plant: shelterbelt, wildlife habitat, ornamental. Cold and drought tolerant. Received as *Syringa amurensis* var. *japonica*. Tree. Cultivated. Plants.

478009 TO 478010. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by C. Bruns; North American Plant Breeders; Berthoud, Colorado.  
Received June 1983.

478009. HR 53. United States. Sonora/Trapper//Warrior/3/II18889/Trapper//C0652643. Plants semi-dwarf (single gene type). Maturity medium. Straw strength exceptionally good. Winterhardness moderate. Seeds uniform, small, vitreous. Resistant to soil borne mosaic virus, moderately resistant to Hessian fly (resistance presumably derived from Marquillo), resistant to mixture of *Puccinia graminis* races 15-TNM, 151-QFB and 29-HJC, resistant to leaf rust (*P. recondita*) and moderately resistant to moderately susceptible to wheat streak mosaic virus. Winter Annual. Cultivar. Seed.

478010. HR 64. United States. Sonora/Trapper//Warrior/3/II18889/Trapper//C0652643. Plants semi-dwarf (single gene type). Maturity medium to late. Straw strength exceptionally good. Winterhardness moderate. Seeds uniform, small, vitreous. Resistant to soil borne mosaic virus. Moderately resistant to Hessian fly, wheat streak mosaic virus, and to a mixture of stem rust (*Puccinia graminis*) races 15-TNM, 151-QFB, and 29-HJC. Fair protection through *Lr-1* form to leaf rust (*P. recondita*). Winter Annual. Cultivar. Seed.

478011 TO 478284. *Triticum aestivum* L. (Poaceae) Common wheat.

From Pakistan. Collected by Pakistan Agricultural Research Council, Foundation for Agricultural Plant Breeding, and IBPGR; Islamabad, Wageningen, Netherlands, & Rome, Italy.  
Received March 1983.

478011. PNE 176-1. Pakistan. Collected May 21, 1981. Irrigated field, Bostan, Baluchistan. 1500m. Small population. Spikes awned and awnless. Annual. Cultivated. Seed.

478012. PNE 176-1A. Pakistan. Collected May 21, 1981. Irrigated field, Bostan, Baluchistan. 1500m. Small population. Spikes awned. Annual. Cultivated. Seed.

478013. PNE 176-2. Pakistan. Collected May 21, 1981. Irrigated field, Bostan, Baluchistan. 1500m. Small population.

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- Spikes awned. Annual. Cultivated. Seed.
478014. PNE 177-1. Pakistan. Collected May 21, 1981. Irrigated field, 4km from Pishin to Chaman, Baluchistan. 1440m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478015. PNE 177-1A. Pakistan. Collected May 21, 1981. Irrigated field, 4km from Pishin to Chaman, Baluchistan. 1440m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478016. PNE 179-1. Pakistan. Collected May 21, 1981. Irrigated field, Kakani, Baluchistan. 1450m. Small population. Spikes awned and awnless. Annual. Cultivated. Seed.
478017. PNE 179-2. Pakistan. Collected May 21, 1981. Irrigated field, Kakani, Baluchistan. 1450m. Small population. Spikes awned. Annual. Cultivated. Seed.
478018. PNE 181-1. Pakistan. Collected May 22, 1981. Dryland field, Chaman, Baluchistan. 1310m. Small population. Spikes awned. Annual. Cultivated. Seed.
478019. PNE 183-1. Pakistan. Collected May 22, 1981. Dryland field, South of Khojak Pass, Baluchistan. 1610m. Small population. Spikes awnletted. Annual. Cultivated. Seed.
478020. PNE 183-2. Pakistan. Collected May 22, 1981. Dryland field, South of Khojak Pass, Baluchistan. 1610m. Large population. Spikes awnletted. Annual. Cultivated. Seed.
478021. PNE 185-1. Pakistan. Collected May 22, 1981. Irrigated field, 2km south of Qila Abdulla, Baluchistan. 1440m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478022. PNE 185-2. Pakistan. Collected May 22, 1981. Irrigated field, 5km south of Qila Abdulla, Baluchistan. 1440m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478023. PNE 186-1. Pakistan. Collected May 22, 1981. Dryland field, 4km from Gulistan to Murchakai, Baluchistan. 1500m. Small population. Spikes awned. Annual. Cultivated. Seed.
478024. PNE 187-1. Pakistan. Collected May 22, 1981. Dryland field, 22km from Gulistan to Murchakai, Baluchistan. 1410m. Small population. Spikes awned. Annual. Cultivated. Seed.
478025. PNE 188-1. Pakistan. Collected May 22, 1981. Dryland field, 40km from Gulistan to Murchakai, Baluchistan.



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- 1380m. Small population. Spikes awned. Annual. Cultivated. Seed.
478026. PNE 188-2. Pakistan. Collected May 22, 1981. Dryland field, 40km from Gulistan to Murchakai, Baluchistan. 1380m. Small population. Spikes awned. Annual. Cultivated. Seed.
478027. PNE 190-1. Pakistan. Collected May 22, 1981. Dryland field, 12km from Ghazaband to Ghazaban, Baluchistan. 1300m. Small population. Spikes awned. Annual. Cultivated. Seed.
478028. PNE 193-2. Pakistan. Collected May 23, 1981. Threshing place, irrigated, Urak, Baluchistan. 2020m. Small population. Spikes 90 percent - 10 percent awnless. Annual. Cultivated. Seed.
478029. PNE 193-5. Pakistan. Collected May 23, 1981. Farm storage, irrigated, Urak, Baluchistan. 2020m. Small population. Spikes 90 percent awnless. Annual. Cultivated. Seed.
478030. PNE 195-2. Pakistan. Collected May 23, 1981. Farm storage, irrigated, 6km from Urak to Quetta, Baluchistan. 1900m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478031. PNE 196-2. Pakistan. Collected May 24, 1981. Irrigated field, Saraib, Baluchistan. 1650m. Large population. Spikes awnless. Annual. Cultivated. Seed.
478032. PNE 197-1. Pakistan. Collected May 24, 1981. Irrigated field, Miangundi, Baluchistan. 1750m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478033. PNE 197-2. Pakistan. Collected May 24, 1981. Irrigated field, Miangundi, Baluchistan. 1750m. Small population. Spikes awned. Annual. Cultivated. Seed.
478034. PNE 198-1. Pakistan. Collected May 24, 1981. Irrigated field, 32km from Quetta on road Nuski, Baluchistan. 1630m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478035. PNE 198-2. Pakistan. Collected May 24, 1981. Irrigated field, 32km from Quetta on road Nuski, Baluchistan. 1630m. Large population. Spikes awned. Annual. Cultivated. Seed.
478036. PNE 198-4. Pakistan. Collected May 24, 1981. Farm storage, irrigated, 32km from Quetta on road Nuski, Baluchistan. 1630m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.

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478037. PNE 198-6. Pakistan. Collected May 24, 1981. Irrigated field, 32km from Quetta on road Nuski, Baluchistan. 1630m. Large population. Spikes awned. Annual. Cultivated. Seed.
478038. PNE 199-1. Pakistan. Collected May 24, 1981. Threshing place, Mastang, Baluchistan. 1600m. Large population. Spikes 90 percent awnless. Annual. Cultivated. Seed.
478039. PNE 202-2. Pakistan. Collected May 26, 1981. Farm storage, dryland, Karisur, Baluchistan. 1580m. Large population. Spikes 90 percent awnless. Annual. Cultivated. Seed.
478040. PNE 203-4. Pakistan. Collected May 26, 1981. Farm storage, irrigated, 65km from Quetta to Kalat, Baluchistan. 1630m. Large population. Spikes awnless. Annual. Cultivated. Seed.
478041. PNE 204-4. Pakistan. Collected May 26, 1981. Farm storage, irrigated, Manguchar Valley, Baluchistan. 1670m. Large population. Spikes 80 percent awned. Annual. Cultivated. Seed.
478042. PNE 205-3. Pakistan. Collected May 26, 1981. Farm storage, irrigated, 142km from Quetta to Kalat, Baluchistan. 1880m. Large population. Spikes awned, awnless, and awnletted. Annual. Cultivated. Seed.
478043. PNE 206-2. Pakistan. Collected May 26, 1981. Farm storage, dryland, 12km from Kalat to Surab, Baluchistan. 1930m. Large population. Spikes awned, awnless, and awnletted. Annual. Cultivated. Seed.
478044. PNE 207-1. Pakistan. Collected May 26, 1981. Dryland field, 43km from Kalat to Surab, Baluchistan. 1760m. Large population. Spikes awnless. Annual. Cultivated. Seed.
478045. PNE 207-2. Pakistan. Collected May 26, 1981. Dryland field, 43km from Kalat to Surab, Baluchistan. 1760m. Large population. Spikes awnless. Annual. Cultivated. Seed.
478046. PNE 208-1. Pakistan. Collected May 27, 1981. Irrigated experimental station, Surab, Baluchistan. 1700m. Large population. Spikes awned and awnletted. Annual. Cultivated. Seed.
478047. PNE 209-1. Pakistan. Collected May 27, 1981. Irrigated field, 8km from Surab to Gider, Baluchistan. 1640m. Large population. Spikes awned. Annual. Cultivated. Seed.

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478048. PNE 210-5. Pakistan. Collected May 27, 1981. Farm storage, irrigated, Anjira, Baluchistan. 1600m. Spikes awned and awnletted. Annual. Cultivated. Seed.
478049. PNE 211-1. Pakistan. Collected May 28, 1981. Dryland field, Halizai, Baluchistan. 1630m. Large population. Spikes awned and awnletted. Annual. Cultivated. Seed.
478050. PNE 211-2. Pakistan. Collected May 28, 1981. Dryland field, Halizai, Baluchistan. 1630m. Small population. Spikes awned. Annual. Cultivated. Seed.
478051. PNE 211-3. Pakistan. Collected May 28, 1981. Dryland field, Halizai, Baluchistan. 1630m. Small population. Spikes awned and awnletted. Annual. Cultivated. Seed.
478052. PNE 211-4. Pakistan. Collected May 28, 1981. Dryland field, Halizai, Baluchistan. 1630m. Small population. Spikes awned and awnletted. Annual. Cultivated. Seed.
478053. PNE 212-1. Pakistan. Collected May 28, 1981. Dryland field, Toba, Baluchistan. 1600m. Large population. Spikes awned. Annual. Cultivated. Seed.
478054. PNE 212-2. Pakistan. Collected May 28, 1981. Dryland field, Toba, Baluchistan. 1600m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478055. PNE 213-1. Pakistan. Collected May 28, 1981. Threshing place, dryland, Bessima, Baluchistan. 1240m. Large population. Spikes awned. Annual. Cultivated. Seed.
478056. PNE 214-2. Pakistan. Collected May 28, 1981. Threshing place, dryland, Kurji, Baluchistan. 1280m. Large population. Spikes awned. Annual. Cultivated. Seed.
478057. PNE 215-1. Pakistan. Collected May 28, 1981. Threshing place, irrigated, Bessima, Baluchistan. 1350m. Large population. Spikes awnletted. Annual. Cultivated. Seed.
478058. PNE 215-2. Pakistan. Collected May 28, 1981. Threshing place, irrigated, Bessima, Baluchistan. 1350m. Large population. Spikes awned. Annual. Cultivated. Seed.
478059. PNE 215-3. Pakistan. Collected May 28, 1981. Threshing place, irrigated, Bessima, Baluchistan. 1350m. Large population. Spikes awnletted. Annual. Cultivated. Seed.
478060. PNE 215-4. Pakistan. Collected May 28, 1981. Threshing place, irrigated, Bessima, Baluchistan. 1350m. Large population. Spikes awnletted. Annual. Cultivated. Seed.

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478061. PNE 216-1. Pakistan. Collected May 29, 1981. Farm storage, Dali, Baluchistan. 1100m. Large population. Spikes awned. Annual. Cultivated. Seed.
478062. PNE 217-1. Pakistan. Collected May 29, 1981. Farm storage, 79km from Bessima to Kharan, Baluchistan. 890m. Large population. Spikes awned. Annual. Cultivated. Seed.
478063. PNE 218-1. Pakistan. Collected May 29, 1981. Irrigated field, 99km from Bessima to Kharan, Baluchistan. 720m. Large population. Spikes awned. Annual. Cultivated. Seed.
478064. PNE 219-1. Pakistan. Collected May 29, 1981. Farm storage, irrigated, Saraan Sarawan, Baluchistan. 730m. Large population. Spikes awned. Annual. Cultivated. Seed.
478065. PNE 220-1. Pakistan. Collected May 29, 1981. Threshing place, 12km from Kharan to Nuchki, Baluchistan. 800m. Large population. Spikes awned. Annual. Cultivated. Seed.
478066. PNE 221-1. Pakistan. Collected May 29, 1981. Threshing place, irrigated, 63km from Kharan to Nushki. 1070m. Large population. Spikes awned. Annual. Cultivated. Seed.
478067. PNE 222-1. Pakistan. Collected May 29, 1981. Farm storage, dryland, Patkin, Baluchistan. 1150m. Large population. Spikes awned. Annual. Cultivated. Seed.
478068. PNE 223-1. Pakistan. Collected May 29, 1981. Threshing place, dryland, 98km from Kharan to Nushki, Baluchistan. 1250m. Large population. Spikes awned. Annual. Cultivated. Seed.
478069. PNE 223-2. Pakistan. Collected May 29, 1981. Threshing place, dryland, 98km from Kharan to Nushki, Baluchistan. 1250m. Large population. Spikes awned. Annual. Cultivated. Seed.
478070. PNE 224-1. Pakistan. Collected May 29, 1981. Farm storage, irrigated, 109km from Kharan to Nushki, Baluchistan. 1150m. Large population. Spikes awned. Annual. Cultivated. Seed.
478071. PNE 225-1. Pakistan. Collected May 31, 1981. Irrigated field, Nozah, Baluchistan. 1550m. Large population. Spikes awned. Annual. Cultivated. Seed.
478072. PNE 225-2. Pakistan. Collected May 31, 1981. Irrigated field, Nozah, Baluchistan. 1550m. Large population. Spikes awned. Annual. Cultivated. Seed.
478073. PNE 225-3. Pakistan. Collected May 31, 1981. Irrigated

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- field, Nozah, Baluchistan. 1550m. Large population. Spikes awned. Annual. Cultivated. Seed.
478074. PNE 225-4. Pakistan. Collected May 31, 1981. Irrigated field, Nozah, Baluchistan. 1550m. Large population. Spikes awnless. Annual. Cultivated. Seed.
478075. PNE 226-1. Pakistan. Collected May 31, 1981. Irrigated field, 47km from Quetta to Khuni/Talab, Baluchistan. 1550m. Large population. Spikes awned. Cultivated. Seed.
478076. PNE 226-2. Pakistan. Collected May 31, 1981. Irrigated field, 47km from Quetta to Khuni/Talab, Baluchistan. 1550m. Large population. Spikes awned. Cultivated. Seed.
478077. PNE 226-3. Pakistan. Collected May 31, 1981. Irrigated field, 47km from Quetta to Khuni/Talab, Baluchistan. 1550m. Large population. Spikes awned. Cultivated. Seed.
478078. PNE 226-4. Pakistan. Collected May 31, 1981. Irrigated field, 47km from Quetta to Khuni/Talab, Baluchistan. 1550m. Large population. Spikes awned. Cultivated. Seed.
478079. PNE 226-5. Pakistan. Collected May 31, 1981. Irrigated field, 47km from Quetta to Khuni/Talab, Baluchistan. 1550m. Large population. Spikes awnless. Cultivated. Seed.
478080. PNE 229-1. Pakistan. Collected May 31, 1981. Farm storage, irrigated, Barozai, Baluchistan. 1570m. Large population. Spikes awned and awnless. Cultivated. Seed.
478081. PNE 229-2. Pakistan. Collected May 31, 1981. Irrigated field, Barozai, Baluchistan. 1570m. Large population. Spikes awned. Cultivated. Seed.
478082. PNE 229-3. Pakistan. Collected May 31, 1981. Irrigated field, Barozai, Baluchistan. 1570m. Large population. Spikes awned. Cultivated. Seed.
478083. PNE 229-4. Pakistan. Collected May 31, 1981. Irrigated field, Barozai, Baluchistan. 1570m. Large population. Spikes awned. Cultivated. Seed.
478084. PNE 229-5. Pakistan. Collected May 31, 1981. Irrigated field, Barozai, Baluchistan. 1570m. Large population. Spikes awnless. Cultivated. Seed.
478085. PNE 230-1. Pakistan. Collected June 02, 1981. Irrigated field, Umarabad, Baluchistan. 1580m. Large population. Spikes awned. Cultivated. Seed.
478086. PNE 230-2. Pakistan. Collected June 02, 1981. Irrigated field, Umarabad, Baluchistan. 1580m. Large population.

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- Spikes awned. Cultivated. Seed.
478087. PNE 230-3. Pakistan. Collected June 02, 1981. Irrigated field, Umarabad, Baluchistan. 1580m. Large population. Spikes awned. Cultivated. Seed.
478088. PNE 231-3. Pakistan. Collected June 02, 1981. Irrigated field, Kach, Baluchistan. 1700m. Large population. Spikes awned. Cultivated. Seed.
478089. PNE 231-4. Pakistan. Collected June 02, 1981. Irrigated field, Kach, Baluchistan. 1700m. Large population. Spikes awned. Cultivated. Seed.
478090. PNE 231-5. Pakistan. Collected June 02, 1981. Farm storage, irrigated, Kach, Baluchistan. 1700m. Large population. Spikes awned and awnletted. Cultivated. Seed.
478091. PNE 232-2. Pakistan. Collected June 02, 1981. Irrigated field, 62km from Bostan to Ziarat, Baluchistan. 2100m. Small population. Spikes awned and awnletted. Cultivated. Seed.
478092. PNE 232-3. Pakistan. Collected June 02, 1981. Irrigated field, 62km from Bostan to Ziarat, Baluchistan. 2100m. Large population. Spikes awned. Cultivated. Seed.
478093. PNE 232-4. Pakistan. Collected June 02, 1981. Irrigated field, 62km from Bostan to Ziarat, Baluchistan. 2100m. Large population. Spikes awned. Cultivated. Seed.
478094. PNE 234-1. Pakistan. Collected June 03, 1981. Irrigated field, Kawas, Baluchistan. 2410m. Large population. Spikes awned and awnletted. Cultivated. Seed.
478095. PNE 234-2. Pakistan. Collected June 03, 1981. Irrigated field, Kawas, Baluchistan. 2010m. Large population. Spikes awnless. Cultivated. Seed.
478096. PNE 235-4. Pakistan. Collected June 03, 1981. Irrigated, Kan Valley area, Baluchistan. 1900m. Spikes awned. Cultivated. Seed.
478097. PNE 237-2. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Chena, Baluchistan. 2100m. Large population. Spikes awned. Cultivated. Seed.
478098. PNE 238-1. Pakistan. Collected June 03, 1981. Irrigated field, Chauter, Baluchistan. 2200m. Large population. Spikes awned and awnletted. Cultivated. Seed.
478099. PNE 238-2. Pakistan. Collected June 03, 1981. Irrigated field, Chauter, Baluchistan. 2200m. Large population.

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Spikes awned. Cultivated. Seed.

478100. PNE 238-4. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Chauter, Baluchistan. 2200m. Single plant. Spikes awned. Cultivated. Seed.
478101. PNE 239-1. Pakistan. Collected June 03, 1981. Irrigated field, 31km from Ziarat to Luralai, Baluchistan. 2130m. Large population. Spikes awned. Cultivated. Seed.
478102. PNE 239-2. Pakistan. Collected June 03, 1981. Irrigated field, 31km from Ziarat to Luralai, Baluchistan. 2130m. Large population. Spikes awned. Cultivated. Seed.
478103. PNE 239-3. Pakistan. Collected June 03, 1981. Irrigated field, 31km from Ziarat to Luralai, Baluchistan. 2130m. Small population. Spikes awned. Cultivated. Seed.
478104. PNE 240-1. Pakistan. Collected June 04, 1981. Irrigated field, 37km from Ziarat to Luralai, Baluchistan. 2000m. Small population. Spikes awned. Cultivated. Seed.
478105. PNE 240-2. Pakistan. Collected June 04, 1981. Irrigated field, 37km from Ziarat to Luralai, Baluchistan. 2000m. Large population. Spikes awnless. Cultivated. Seed.
478106. PNE 240-3. Pakistan. Collected June 04, 1981. Irrigated field, 37km from Ziarat to Luralai, Baluchistan. 2000m. Large population. Spikes awned. Cultivated. Seed.
478107. PNE 241-1. Pakistan. Collected June 04, 1981. Irrigated field, Raigora, Baluchistan. 1700m. Large population. Spikes awned. Cultivated. Seed.
478108. PNE 241-2. Pakistan. Collected June 04, 1981. Irrigated field, Raigora, Baluchistan. 1700m. Large population. Spikes awned. Cultivated. Seed.
478109. PNE 242-9. Pakistan. Collected June 04, 1981. Farm storage, irrigated, Sanjawki, Baluchistan. 1600m. Large population. Spikes awned. Cultivated. Seed.
478110. PNE 242-10. Pakistan. Collected June 04, 1981. Threshing place, irrigated, Sanjawki, Baluchistan. 1600m. Large population. Spikes awned. Cultivated. Seed.
478111. PNE 243-1. Pakistan. Collected June 04, 1981. Threshing place, irrigated, 78km from Ziarat to Luralai, Baluchistan. 1580m. Large population. Spikes awned. Cultivated. Seed.
478112. PNE 243-2. Pakistan. Collected June 04, 1981. Threshing place, irrigated, 78km from Ziarat to Luralai,

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- Baluchistan. 1580m. Large population. Spikes awned.  
Cultivated. Seed.
478113. PNE 243-3. Pakistan. Collected June 04, 1981. Threshing place, irrigated, 78km from Ziarat to Luralai, Baluchistan. 1580m. Large population. Spikes awned. Cultivated. Seed.
478114. PNE 244-3. Pakistan. Collected June 04, 1981. Annual. Cultivated. Seed.
478115. PNE 244-4. Pakistan. Collected June 04, 1981. Irrigated field, Luralai, Baluchistan. 1450m. Small population. Spikes awned. Cultivated. Seed.
478116. PNE 244-5. Pakistan. Collected June 04, 1981. Irrigated field, Luralai, Baluchistan. 1450m. Large population. Spikes awned. Cultivated. Seed.
478117. PNE 244-6. Pakistan. Collected June 04, 1981. Irrigated field, Luralai, Baluchistan. 1450m. Large population. Spikes awned. Cultivated. Seed.
478118. PNE 244-7. Pakistan. Collected June 04, 1981. Threshing place, irrigated, Luralai, Baluchistan. 1450m. Large population. Spikes awned. Cultivated. Seed.
478119. PNE 246-1. Pakistan. Collected June 05, 1981. Threshing place, irrigated, 10km from Sanjawi to Harnai, Baluchistan. 1720m. Large population. Spikes awned. Cultivated. Seed.
478120. PNE 247-1. Pakistan. Collected June 05, 1981. Irrigated field, 16km from Sanjawi to Harnai, Baluchistan. 1820m. Large population. Spikes awned. Cultivated. Seed.
478121. PNE 247-2. Pakistan. Collected June 05, 1981. Irrigated field, 16km from Sanjawi to Harnai, Baluchistan. 1820m. Large population. Spikes awned. Cultivated. Seed.
478122. PNE 247-3. Pakistan. Collected June 05, 1981. Irrigated field, 16km from Sanjawi to Harnai, Baluchistan. 1820m. Small population. Spikes awned. Cultivated. Seed.
478123. PNE 250-3. Pakistan. Collected June 06, 1981. Irrigated field, Bazhgai Raha, Baluchistan. 1320m. Large population. Spikes awned. Cultivated. Seed.
478124. PNE 250-4. Pakistan. Collected June 06, 1981. Irrigated field, Bazhgai Raha, Baluchistan. 1320m. Large population. Spikes awned. Cultivated. Seed.
478125. PNE 250-5. Pakistan. Collected June 06, 1981. Irrigated



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- field, Bazhgai Raha, Baluchistan. 1320m. Small population. Spikes awned. Cultivated. Seed.
478126. PNE 250-6. Pakistan. Collected June 06, 1981. Threshing place, irrigated, Bazhgai Raha, Baluchistan. 1320m. Large population. Spikes awned. Cultivated. Seed.
478127. PNE 250-7. Pakistan. Collected June 06, 1981. Irrigated field, Bazhgai Raha, Baluchistan. 1320m. Large population. Spikes awned and awnless. Cultivated. Seed.
478128. PNE 251-2. Pakistan. Collected June 08, 1981. Farm storage, irrigated, Luni, Baluchistan. 210m. Large population. Spikes awned. Cultivated. Seed.
478129. PNE 253-1. Pakistan. Collected June 09, 1981. Farm storage, irrigated, Korik, Baluchistan. 190m. Large population. Spikes awned. Cultivated. Seed.
478130. PNE 253-2. Pakistan. Collected June 09, 1981. Farm storage, irrigated, Korik, Baluchistan. 190m. Large population. Spikes awned. Cultivated. Seed.
478131. PNE 254-6. Pakistan. Collected June 09, 1981. Farm storage, irrigated, Tali, Baluchistan. 190m. Large population. Spikes awned. Cultivated. Seed.
478132. PNE 254-7. Pakistan. Collected June 09, 1981. Farm storage, irrigated, Tali, Baluchistan. 190m. Large population. Spikes awned. Cultivated. Seed.
478133. PNE 255-3. Pakistan. Collected June 09, 1981. Farm storage, irrigated, Khejj Khajjak, Baluchistan. 190m. Large population. Spikes awned. Cultivated. Seed.
478134. PNE 255-16. Pakistan. Collected June 09, 1981. Farm storage, irrigated, Khejj Khajjak, Baluchistan. 190m. Large population. Spikes awned. Cultivated. Seed.
478135. PNE 257-13. Pakistan. Collected June 09, 1981. Farm storage, irrigated, Sibi, Baluchistan. 200m. Large population. Spikes awned. Cultivated. Seed.
478136. PNE 258-1. Pakistan. Collected June 09, 1981. Farm storage, irrigated, Maharghar, Baluchistan. 230m. Large population. Spikes awned. Cultivated. Seed.
478137. PNE 259-1. Pakistan. Collected June 11, 1981. Irrigated field, 7km from Siarab to Mach, Baluchistan. 1720m. Large population. Spikes awned. Cultivated. Seed.
478138. PNE 259-2. Pakistan. Collected June 11, 1981. Irrigated field, 7km from Siarab to Mach, Baluchistan. 1720m. Large

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- population. Spikes awned. Cultivated. Seed.
478139. PNE 259-3. Pakistan. Collected June 11, 1981. Irrigated field, 7km from Siarab to Mach, Baluchistan. 1720m. Large population. Spikes awnless. Cultivated. Seed.
478140. PNE 259-4. Pakistan. Collected June 11, 1981. Irrigated field, 7km from Siarab to Mach, Baluchistan. 1720m. Large population. Spikes awned and awnless. Cultivated. Seed.
478141. PNE 259-5. Pakistan. Collected June 11, 1981. Threshing place, irrigated, 7km from Siarab to Mach, Baluchistan. 1720m. Large population. Spikes awned. Cultivated. Seed.
478142. PNE 260-1. Pakistan. Collected June 11, 1981. Farm storage, irrigated, Spezand, Baluchistan. 1710m. Large population. Spikes 90 percent awnless. Cultivated. Seed.
478143. PNE 261-2. Pakistan. Collected June 11, 1981. Irrigated field, Spezand Ghoes Ahad, Baluchistan. 1710m. Large population. Spikes awned. Annual. Cultivated. Seed.
478144. PNE 261-3. Pakistan. Collected June 11, 1981. Irrigated field, Spezand Ghoes Ahad, Baluchistan. 1710m. Large population. Spikes awned. Cultivated. Seed.
478145. PNE 261-4. Pakistan. Collected June 11, 1981. Irrigated field, Spezand Ghoes Ahad, Baluchistan. 1710m. Large population. Spikes awned. Cultivated. Seed.
478146. PNE 261-5. Pakistan. Collected June 11, 1981. Irrigated field, Spezand Ghoes Ahad, Baluchistan. 1710m. Large population. Spikes awnless. Cultivated. Seed.
478147. PNE 261-6. Pakistan. Collected June 11, 1981. Irrigated field, Spezand Ghoes Ahad, Baluchistan. 1710m. Large population. Spikes awnletted. Cultivated. Seed.
478148. PNE 261-7. Pakistan. Collected June 11, 1981. Irrigated field, Spezand Ghoes Ahad, Baluchistan. 1710m. Large population. Spikes awnletted. Cultivated. Seed.
478149. PNE 262-2. Pakistan. Collected June 11, 1981. Dryland field, near Kambala, Baluchistan. 1700m. Large population. Spikes awned. Cultivated. Seed.
478150. PNE 262-3. Pakistan. Collected June 11, 1981. Dryland field, near Kambala, Baluchistan. 1700m. Large population. Spikes awned. Cultivated. Seed.
478151. PNE 262-4. Pakistan. Collected June 11, 1981. Dryland field, near Kambala, Baluchistan. 1700m. Large population. Spikes awnless. Cultivated. Seed.

478011 TO 478284-continued

478152. PNE 262-5. Pakistan. Collected June 11, 1981. Dryland field, near Kambala, Baluchistan. 1700m. Large population. Spikes awned and awnletted. Cultivated. Seed.
478153. PNE 264-2. Pakistan. Collected June 11, 1981. Dryland field, Lakh Pass, Baluchistan. 1740m. Large population. Spikes awned. Cultivated. Seed.
478154. PNE 264-3. Pakistan. Collected June 11, 1981. Dryland field, Lakh Pass, Baluchistan. 1740m. Large population. Spikes awned. Cultivated. Seed.
478155. PNE 264-4. Pakistan. Collected June 11, 1981. Dryland field, Lakh Pass, Baluchistan. 1740m. Large population. Spikes awnless. Cultivated. Seed.
478156. PNE 264-5. Pakistan. Collected June 11, 1981. Dryland field, Lakh Pass, Baluchistan. 1740m. Large population. Spikes awnletted. Cultivated. Seed.
478157. PNE 265-1. Pakistan. Collected June 12, 1981. Dryland field, Quetta Mach road to Daghari, Baluchistan. 1720m. Large population. Spikes awnless. Cultivated. Seed.
478158. PNE 265-2. Pakistan. Collected June 12, 1981. Dryland field, Quetta Mach road to Daghari, Baluchistan. 1720m. Large population. Spikes awned. Cultivated. Seed.
478159. PNE 265-3. Pakistan. Collected June 12, 1981. Dryland field, Quetta Mach road to Daghari, Baluchistan. 1720m. Large population. Spikes awned. Cultivated. Seed.
478160. PNE 265-6. Pakistan. Collected June 12, 1981. Threshing place, dryland, Quetta Mach road to Daghari, Baluchistan. 1720m. Large population. Spikes awned and awnless. Cultivated. Seed.
478161. PNE 266-1. Pakistan. Collected June 12, 1981. Farm storage, dryland, Zarbhoo Datash, Baluchistan. 1830m. Large population. 90 percent awnless. Cultivated. Seed.
478162. PNE 267-1. Pakistan. Collected June 12, 1981. Threshing place, irrigated, 13km from Daghari to Quetta, Baluchistan. 1650m. Large population. Spikes awned, awnletted, and awnless. Cultivated. Seed.
478163. PNE 267-4. Pakistan. Collected June 12, 1981. Dryland field, 13km from Daghari to Quetta, Baluchistan. 1650m. Large population. Spikes awnless. Cultivated. Seed.
478164. PNE 267-5. Pakistan. Collected June 12, 1981. Dryland field, 13km from Daghari to Quetta, Baluchistan. 1650m.

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- Large population. Spikes awned. Cultivated. Seed.
478165. PNE 267-6. Pakistan. Collected June 12, 1981. Dryland field, 13km from Daghari to Quetta, Baluchistan. 1650m. Large population. Spikes awned. Cultivated. Seed.
478166. PNE 267-7. Pakistan. Collected June 12, 1981. From Daghari to Quetta, Baluchistan, 13km. 1650m. Spikes awned, and awnletted. Annual. Seed.
478167. PNE 350-3. Pakistan. Collected May 22, 1981. Farm storage, dryland, Surki and Takiri, Baluchistan. 1550m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478168. PNE 351-1. Pakistan. Collected May 22, 1981. Farm storage, dryland, Tabina Cross, Baluchistan. 2060m. Large population. Spikes awned. Annual. Cultivated. Seed.
478169. PNE 352-1. Pakistan. Collected May 22, 1981. Farm storage, dryland, Kili Haji Babari, Baluchistan. 2050m. Large population. Spikes awned. Annual. Cultivated. Seed.
478170. PNE 352-3. Pakistan. Collected May 22, 1981. Farm storage, irrigated, Kili Haji Babari, Baluchistan. 2050m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478171. PNE 354-3. Pakistan. Collected May 22, 1981. Farm storage, irrigated, Tasha Rabat, Baluchistan. 1140m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478172. PNE 355-2. Pakistan. Collected May 22, 1981. Farm storage, irrigated, Warjaro Harдозai, Baluchistan. 1720m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478173. PNE 356-2. Pakistan. Collected May 23, 1981. Farm storage, irrigated, Dobandai, Baluchistan. 1650m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478174. PNE 356-3. Pakistan. Collected May 23, 1981. Farm storage, dryland, Dobandai, Baluchistan. 1650m. Large population. Spikes awned, awnless, and awnletted. Annual. Cultivated. Seed.
478175. PNE 357-1. Pakistan. Collected May 23, 1981. Farm storage, Khurd Dobandai, Baluchistan. 1730m. Small population. Spikes awned. Cultivated. Seed.
478176. PNE 357-4. Pakistan. Collected May 23, 1981. Farm storage, irrigated, Khurd Dobandai, Baluchistan. 1730m.

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Large population. Spikes awnletted. Winter Annual.  
Cultivated. Seed.

478177. PNE 358-4. Pakistan. Collected May 23, 1981. Farm storage, irrigated, Kachi Ahsana, Baluchistan. 1840m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478178. PNE 361-2. Pakistan. Collected May 23, 1981. Farm storage, irrigated, Binyadai, Baluchistan. 2140m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478179. PNE 362-1. Pakistan. Collected May 23, 1981. Farm storage, dryland, Sabura, Baluchistan. 2200m. Large population. Spikes awned. Annual. Cultivated. Seed.
478180. PNE 362-5. Pakistan. Collected May 23, 1981. Farm storage, irrigated, Sabura, Baluchistan. 2200m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478181. PNE 363-1. Pakistan. Collected May 23, 1981. Farm storage, Kili Usko, Baluchistan. 2260m. Large population. Spikes awned. Cultivated. Seed.
478182. PNE 364-3. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Kili Haji Khan, Baluchistan. 2320m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478183. PNE 365-1. Pakistan. Collected May 24, 1981. Farm storage, dryland, Kili Sagae, Baluchistan. 2330m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478184. PNE 365-3. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Kili Sagae, Baluchistan. 2330m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478185. PNE 365-4. Pakistan. Collected May 24, 1981. Farm storage, dryland, Kili Sagae, Baluchistan. 2330m. Large population. Spikes awned. Annual. Cultivated. Seed.
478186. PNE 365-6. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Kili Sagae, Baluchistan. 2330m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478187. PNE 365-7. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Kili Sagae, Baluchistan. 2330m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478188. PNE 367-1. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Ghaez, Baluchistan. 2050m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.

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478189. PNE 368-1. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Chinjan, Baluchistan. 1850m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478190. PNE 369-2. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Qila Viala, Baluchistan. 1810m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478191. PNE 370-1. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Mian Khanezai, Baluchistan. 1610m. Large population. Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478192. PNE 371-1. Pakistan. Collected May 24, 1981. Irrigated field, Dab Khanzai, Baluchistan. 1550m. Large population. Spikes awnless. Winter Annual. Cultivated. Seed.
478193. PNE 373-1. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Kili Bataizai Kona Bazar, Baluchistan. 1550m. Large population. Spikes awned and awnletted. Winter Annual. Cultivated. Seed.
478194. PNE 373-3. Pakistan. Collected May 24, 1981. Farm storage, irrigated, Kili Bataizai Kona Bazar, Baluchistan. 1550m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478195. PNE 374-1. Pakistan. Collected May 26, 1981. Dryland field, Saed Alim, Baluchistan. 1540m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478196. PNE 374-3. Pakistan. Collected May 26, 1981. Dryland field, Saed Alim, Baluchistan. 1540m. Large population. Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478197. PNE 374-4. Pakistan. Collected May 26, 1981. Farm storage, dryland, Saed Alim, Baluchistan. 1540m. Large population. Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478198. PNE 376-1. Pakistan. Collected May 26, 1981. Irrigated field, Shamaezai, Baluchistan. 1550m. Large population. Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478199. PNE 377-1. Pakistan. Collected May 26, 1981. Dryland field, Sheikh Wasil, Baluchistan. 1550m. Large population. Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478200. PNE 378-1. Pakistan. Collected May 26, 1981. Dryland field, Kirdagaab, Baluchistan. 1500m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.

478011 TO 478284-continued

478201. PNE 379-1. Pakistan. Collected May 26, 1981. Dryland field, Ali Mohd, Baluchistan. 1410m. Large population. Spikes awned. Annual. Cultivated. Seed.
478202. PNE 380-1. Pakistan. Collected May 27, 1981. Dryland field, Bedal Karaez, Baluchistan. 940m. Small population. Spikes awned. Annual. Cultivated. Seed.
478203. PNE 381-1. Pakistan. Collected May 27, 1981. Dryland field, Batto, Baluchistan. 910m. Small population. Spikes awned. Annual. Cultivated. Seed.
478204. PNE 382-1. Pakistan. Collected May 27, 1981. Threshing place, dryland, Taafui, Baluchistan. 880m. Small population. Spikes awned. Annual. Cultivated. Seed.
478205. PNE 383-1. Pakistan. Collected May 27, 1981. Threshing place, dryland, Sar Mal, Baluchistan. 850m. Large population, Spikes awned. Annual. Cultivated. Seed.
478206. PNE 384-1. Pakistan. Collected May 27, 1981. Threshing place, dryland, Kili Naik Mohd, Baluchistan. 840m. Large population, Spikes awned. Annual. Cultivated. Seed.
478207. PNE 385-1. Pakistan. Collected May 27, 1981. Farm storage, dryland, Kockakki, Baluchistan. 830m. Large population, Spikes awned. Annual. Cultivated. Seed.
478208. PNE 386-2. Pakistan. Collected May 27, 1981. Threshing place, dryland, Padag, Baluchistan. 840m. Large population, Spikes awned. Annual. Cultivated. Seed.
478209. PNE 387-1. Pakistan. Collected May 27, 1981. Threshing place, dryland, Char Sar, Baluchistan. 850m. Large population, Spikes awned. Annual. Cultivated. Seed.
478210. PNE 387-4. Pakistan. Collected May 27, 1981. Farm storage, irrigated, Char Sar, Baluchistan. 850m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478211. PNE 388-1. Pakistan. Collected May 27, 1981. Threshing place, dryland, Chaeattar, Baluchistan. 850m. Large population. Spikes awned. Annual. Cultivated. Seed.
478212. PNE 389-1. Pakistan. Collected May 27, 1981. Farm storage, dryland, Kharodukh, Baluchistan. 850m. Large population. Spikes awned. Annual. Cultivated. Seed.
478213. PNE 390-1. Pakistan. Collected May 27, 1981. Dryland field, Peeshok, Baluchistan. 850m. Large population. Spikes awned. Annual. Cultivated. Seed.

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478214. PNE 391-1. Pakistan. Collected May 28, 1981. Threshing place, dryland, Aminabad, Baluchistan. 870m. Small population. Spikes awned. Annual. Cultivated. Seed.
478215. PNE 392-1. Pakistan. Collected May 28, 1981. Threshing place, irrigated, Raehi, Baluchistan. 880m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478216. PNE 393-1. Pakistan. Collected May 28, 1981. Threshing place, dryland, Zamin Baud, Baluchistan. 920m. Large population. Spikes awned. Annual. Cultivated. Seed.
478217. PNE 393-3. Pakistan. Collected May 28, 1981. Threshing place, dryland, Zamin Baud, Baluchistan. 920m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478218. PNE 394-2. Pakistan. Collected May 28, 1981. Threshing place, irrigated, Peeshuk, Baluchistan. 910m. Large population. Spikes awnless. Winter Annual. Cultivated. Seed.
478219. PNE 394-3. Pakistan. Collected May 28, 1981. Threshing place, irrigated, Peeshuk, Baluchistan. 910m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478220. PNE 394-4. Pakistan. Collected May 28, 1981. Threshing place, dryland, Peeshuk, Baluchistan. 910m. Large population. Spikes awned. Annual. Cultivated. Seed.
478221. PNE 395-1. Pakistan. Collected May 29, 1981. Threshing place, dryland, Lashkar Aab, Baluchistan. 900m. Small population. Spikes awned. Annual. Cultivated. Seed.
478222. PNE 396-1. Pakistan. Collected May 29, 1981. Threshing place, dryland, Isa Chah, Baluchistan. 930m. Large population. Spikes awned. Annual. Cultivated. Seed.
478223. PNE 397-2. Pakistan. Collected May 29, 1981. Dryland field, Isa Chah, Baluchistan. 930m. Large population. Spikes awned. Annual. Cultivated. Seed.
478224. PNE 398-1. Pakistan. Collected May 29, 1981. Farm storage, dryland, Darzi Chah, Baluchistan. 940m. Large population. Spikes awned. Annual. Cultivated. Seed.
478225. PNE 399-1. Pakistan. Collected May 29, 1981. Threshing place, dryland, Baedi, Baluchistan. 960m. Large population. Spikes awned. Annual. Cultivated. Seed.
478226. PNE 401-3. Pakistan. Collected May 30, 1981. Farm storage, dryland, Nushki, Baluchistan. 900m. Large population. Spikes awned. Annual. Cultivated. Seed.



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478227. PNE 402-1. Pakistan. Collected May 30, 1981. Dryland field, Khaisar, Baluchistan. 1250m. Small population. Spikes awned. Annual. Cultivated. Seed.
478228. PNE 403-1. Pakistan. Collected May 30, 1981. Threshing place, dryland, Galangur, Baluchistan. 1470m. Large population. Spikes awned. Annual. Cultivated. Seed.
478229. PNE 404-1. Pakistan. Collected May 30, 1981. Farm storage, irrigated, Gunintal, Baluchistan. 1530m. Large population, Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478230. PNE 404-2. Pakistan. Collected May 30, 1981. Farm storage, dryland, Gunintal, Baluchistan. 1530m. Large population. Spikes awned. Annual. Cultivated. Seed.
478231. PNE 405-1. Pakistan. Collected May 30, 1981. Dryland field, Baluchistan. 1500m. Large population. Spikes awnless. Annual. Cultivated. Seed.
478232. PNE 406-1. Pakistan. Collected May 30, 1981. Irrigated field, Panjpai, Baluchistan. 1490m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478233. PNE 406-2. Pakistan. Collected May 30, 1981. Field, Panjpai, Baluchistan. 1490m. Large population. Spikes awned. Annual. Cultivated. Seed.
478234. PNE 406-3. Pakistan. Collected May 30, 1981. Irrigated field, Panjpai, Baluchistan. 1490m. Small population. Spikes awnless. Winter Annual. Cultivated. Seed.
478235. PNE 406-4. Pakistan. Collected May 30, 1981. Irrigated field, Panjpai, Baluchistan. 1490m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478236. PNE 406-7. Pakistan. Collected May 30, 1981. Farm storage, irrigated, Panjpai, Baluchistan. 1490m. Large population. Spikes awned and awnless. Annual. Cultivated. Seed.
478237. PNE 407-1. Pakistan. Collected June 02, 1981. Farm storage, Dilisor, Baluchistan. 2000m. Spikes 90 percent awned. Seed.
478238. PNE 408-4. Pakistan. Collected June 02, 1981. Farm storage, dryland, Kan Mahter Zai, Baluchistan. 2370m. Small population. Spikes 90 percent awned. Annual. Cultivated. Seed.
478239. PNE 408-5. Pakistan. Collected June 02, 1981. Farm

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- storage, irrigated, Kan Mahter Zai, Baluchistan. 2370m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478240. PNE 409-1. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Muslim Bagh, Baluchistan. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478241. PNE 409-2. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Muslim Bagh, Baluchistan. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478242. PNE 409-8. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Muslim Bagh, Baluchistan. Small population. Spikes awnless and awnletted. Winter Annual. Cultivated. Seed.
478243. PNE 410-2. Pakistan. Collected June 03, 1981. Irrigated field, Natar Tangi, Baluchistan. 1660m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478244. PNE 410-3. Pakistan. Collected June 03, 1981. Irrigated field, Natar Tangi, Baluchistan. 1660m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478245. PNE 411-4. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Nasai, Baluchistan. 1640m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478246. PNE 412-2. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Babu Cheena, Baluchistan. 2050m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478247. PNE 412-6. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Babu Cheena, Baluchistan. 2050m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478248. PNE 412-7. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Babu Cheena, Baluchistan. 2050m. Small population. Spikes awned. Annual. Cultivated. Seed.
478249. PNE 413-1. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Margha Fagir Zai, Baluchistan. 2130m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478250. PNE 413-3. Pakistan. Collected June 03, 1981. Farm storage, irrigated, Margha Fagir Zai, Baluchistan. 2130m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.

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478251. PNE 414-2. Pakistan. Collected June 04, 1981. Irrigated field, Sharan, Baluchistan. 1900m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478252. PNE 415-3. Pakistan. Collected June 04, 1981. Irrigated field, Karm Zai Kacbh, Baluchistan. 1860m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478253. PNE 417-1. Pakistan. Collected June 04, 1981. Threshing place, irrigated, Watterzion, Baluchistan. 1620m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478254. PNE 418-1. Pakistan. Collected June 05, 1981. Threshing place, irrigated, Akhtarzai, Baluchistan. 1550m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478255. PNE 419-1. Pakistan. Collected June 05, 1981. Farm storage, dryland, Gawal Haider Zai, Baluchistan. 1520m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478256. PNE 419-3. Pakistan. Collected June 05, 1981. Farm storage, dryland, Gawal Haider Zai, Baluchistan. 1520m. Small population. Spikes awned. Annual. Cultivated. Seed.
478257. PNE 420-1. Pakistan. Collected June 05, 1981. Farm storage, dryland, Allozai, Baluchistan. 1550m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478258. PNE 421-3. Pakistan. Collected June 05, 1981. Farm storage, irrigated, Kaceh Ahneg Zai, Baluchistan. 1800m. Small population. Spikes awned. Annual. Cultivated. Seed.
478259. PNE 422-1. Pakistan. Collected June 05, 1981. Farm storage, dryland, Ingangai, Baluchistan. 1700m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478260. PNE 423-2. Pakistan. Collected June 05, 1981. Threshing place, irrigated, Shahkarez, Baluchistan. 1550m. Large population. Spikes awned. Annual. Cultivated. Seed.
478261. PNE 424-2. Pakistan. Collected June 06, 1981. Threshing place, irrigated, Dargai Sargarah, Baluchistan. 1965m. Large population. Spikes awned. Winter Annual. Cultivated. Seed.
478262. PNE 425-2. Pakistan. Collected June 06, 1981. Farm storage, irrigated, Chinjin, Baluchistan. 2160m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478263. PNE 426-3. Pakistan. Collected June 06, 1981. Farm storage, Spinzanchi, Baluchistan. 2280m. Small population.

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Spikes awned. Cultivated. Seed.

478264. PNE 426-4. Pakistan. Collected June 06, 1981. Farm storage, irrigated, Spinzanchi, Baluchistan. 2280m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478265. PNE 427-5. Pakistan. Collected June 07, 1981. Farm storage, dryland, Zargoan, Baluchistan. 1890m. Small population. Spikes awned. Annual. Cultivated. Seed.
478266. PNE 427-6. Pakistan. Collected June 07, 1981. Farm storage, irrigated, Zargoan, Baluchistan. 1890m. Large population. Spikes awned. Winter Annual. Seed.
478267. PNE 428-1. Pakistan. Collected June 09, 1981. Farm storage, dryland, Dool Tawar, Baluchistan. 800m. Small population. Spikes awned and awnletted. Winter Annual. Cultivated. Seed.
478268. PNE 429-1. Pakistan. Collected June 09, 1981. Farm storage, dryland, Yaw Macch, Baluchistan. 760m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478269. PNE 429-2. Pakistan. Collected June 09, 1981. Farm storage, dryland, Yaw Macch, Baluchistan. 760m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478270. PNE 430-1. Pakistan. Collected June 09, 1981. Farm storage, dryland, Khurmagay, Baluchistan. 555m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478271. PNE 431-1. Pakistan. Collected June 09, 1981. Farm storage, dryland, Kitgai, Baluchistan. 550m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478272. PNE 433-1. Pakistan. Collected June 10, 1981. Farm storage, dryland, Kandtagez, Baluchistan. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478273. PNE 434-1. Pakistan. Collected June 10, 1981. Farm storage, dryland, Sorro, Baluchistan. 500m. Small population. Spikes awned. Winter Annual. Cultivated. Seed.
478274. PNE 435-1. Pakistan. Collected June 10, 1981. Farm storage, dryland, Tulmokamado, Baluchistan. Large population, Spikes awned. Winter Annual. Cultivated. Seed.
478275. PNE 436-1. Pakistan. Collected June 11, 1981. Threshing place, irrigated, Kirtaka, Baluchistan. 950m. Small population. Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478276. PNE 436-3. Pakistan. Collected June 11, 1981. Farm

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- storage, irrigated, Kirtaka, Baluchistan. 950m. Small population. Spikes awnless. Winter Annual. Cultivated. Seed.
478277. PNE 437-3. Pakistan. Collected June 11, 1981. Threshing place, irrigated, Kachao, Baluchistan. 1250m. Large population. Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478278. PNE 437-4. Pakistan. Collected June 11, 1981. Farm storage, irrigated, Kachao, Baluchistan. 1250m. Small population. Spikes awned and awnless. Winter Annual. Cultivated. Seed.
478279. Yecora. Pakistan. Collected 1981. Spikes awned. Seed.
478280. Zamiwdar 80. Pakistan. Collected 1981. Spikes awned. Cultivated. Seed.
478281. Nuri. Pakistan. Collected 1981. Spikes awned. Cultivated. Seed.
478282. Somlika. Pakistan. Collected 1981. Spikes awned. Cultivated. Seed.
478283. Zerghoon 79. Pakistan. Collected 1981. Spikes awned. Cultivated. Seed.
478284. Paron. Pakistan. Collected 1981. Spikes awned. Cultivated. Seed.

478285 TO 478286. *Triticum durum* Desf. (Poaceae) Durum wheat.

From Pakistan. Collected by Pakistan Agricultural Research Council, Foundation for Agricultural Plant Breeding, and IBPGR; Islamabad, Wageningen, Netherlands, & Rome, Italy. Received March 1983.

478285. PNE 226-6. Pakistan. Collected May 31, 1981. Irrigated field, 47km from Quetta to Khuni/Talab, Baluchistan. Cultivated. Seed.
478286. PNE 244-2. Pakistan. Collected June 04, 1981. Irrigated field, Luralai, Baluchistan. Cultivated. Seed.

478287. *Spartium junceum* L. (Fabaceae) Spanish broom.

From Ecuador. Collected by P. K. Soderholm; Subtropical Horticultural Research Station, USDA; Miami, Florida. Received June 1983.

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M 25285. Collected September 18, 1978. Roadside above Rio Pastaza, Pelileo. 2800m. Local name Retame. Wild. Seed.

**478288 TO 478297. Zea mays L. (Poaceae) Field corn.**

From Madagascar. Collected by T. A. Perez; International Institute of Tropical Agriculture (IITA); Ibadan, Nigeria. Received through IBFGR, Rome. Received March 1982.

478288. AP80-44. Madagascar. Latitude: 18 deg 56 m S; Longitude: 048 deg 14 m E. Moramanga, 115km W., Tananarive to Tamatave. Cultivated. Seed.
478289. AP80-57. Madagascar. Latitude: 18 deg 56 m S; Longitude: 048 deg 14 m E. Moramanga, 115km W., Tananarive to Tamatave. Local name Katsaka Mena. Cultivated. Seed.
478290. AP80-148. Madagascar. Latitude: 23 deg 19 m S; Longitude: 043 deg 43 m E. Miary, 9km NE, Tulear to Ambalonkira. Cultivated. Seed.
478291. AP80-152. Madagascar. Latitude: 23 deg 21 m S; Longitude: 043 deg 40 m E. Tulear. Cultivated. Seed.
478292. AP80-153. Madagascar. Latitude: 23 deg 21 m S; Longitude: 043 deg 40 m E. Tulear. Cultivated. Seed.
478293. AP80-154. Madagascar. Latitude: 23 deg 21 m S; Longitude: 043 deg 40 m E. Tulear. Cultivated. Seed.
478294. AP80-161. Madagascar. Latitude: 22 deg 46 m S; Longitude: 043 deg 37 m E. Ankililoaka, 76km N., Tulear to Morombe. Cultivated. Seed.
478295. AP80-235. Madagascar. Latitude: 18 deg 55 m S; Longitude: 047 deg 32 m E. Tananarive. Testa orange. Cultivated. Seed.
478296. AP80-236. Madagascar. Latitude: 18 deg 55 m S; Longitude: 047 deg 32 m E. Tananarive. Cultivated. Seed.
478297. AP80-249. Madagascar. Latitude: 18 deg 55 m S; Longitude: 047 deg 32 m E. Tananarive. Cultivated. Seed.

**478298 TO 478304. Triticum durum Desf. (Poaceae) Durum wheat.**

From United States. Donated by R. G. Cantrell; Department of Agronomy, North Dakota State University; Fargo, North Dakota. Received June 1983.

478298. D793. United States. D7456/Vic. Heads awned. Spring

478298 TO 478304-continued

Annual. Breeding Material. Seed.

478299. D804. United States. D77204/D7618. Plants semidwarf. Heads awned. Spring Annual. Breeding Material. Seed.

478300. D7733. United States. D72114/Ed. Heads awned. Spring Annual. Breeding Material. Seed.

478301. D7798. United States. D71110/Ed. Heads awned. Spring Annual. Breeding Material. Seed.

478302. D77200. United States. D7224/Cby. Plants semidwarf. Heads awned. Spring Annual. Breeding Material. Seed.

478303. D78127. United States. D7224/Cd. Plants semidwarf. Heads awned. Spring Annual. Breeding Material. Seed.

478304. D78177. United States. D74111/Cd. Plants semidwarf. Heads awned. Spring Annual. Breeding Material. Seed.

478305. X Triticosecale (Poaceae) Triticale.

From United States. Donated by M. F. Kolding; Columbia Basin Agricultural Research Center, Oregon State University; Pendleton, Oregon.  
Received May 1983.

OR 8655. 'Flora'. United States. Kiss/2/193-803/358. Semi-dwarf, bearded. Hexaploid with a full set of rye and wheat chromosomes. Adapted to intermountain plateaus of northeastern Oregon, sandy soils along the Columbia River, and west central Idaho. Winter Annual. Cultivar. Seed.

478306. Triticum durum Desf. (Poaceae) Durum wheat.

From United States. Donated by M. Wilson; Department of Agronomy and Soils, Washington State University; Pullman, Washington.  
Received May 1983.

WA 6521. 'Durox'. United States. E7013273-4-5 K6800707 Mutant S. 1. Semidwarf, hard amber type. Chaff light tan, nearly white. Awns gray to black. Seeds medium long, nearly elliptical, vitreous and hard. GA3 sensitive. Resistant to stripe rust, leaf rust and mildew. Equal to 'Waid' in quality. Spring Annual. Cultivar. Seed.

478307. Helianthus annuus L. (Asteraceae) Sunflower.

From United States. Collected by I. M. Cull; Horticultural and

478307-continued

Special Crops Laboratory, Northern Regional Research  
Center, USDA; Peoria, Illinois.  
Received June 1983.

United States. Collected September 29, 1982. South of  
Pekin, along State Highway 29, Manito, Illinois. Co-  
collector T. Wilson. Wild. Seed.

478308. *Helianthus maximiliani* Schrad. (Asteraceae) Maximilian's  
sunflower.

From United States. Collected by I. M. Cull; Horticultural and  
Special Crops Laboratory, Northern Regional Research  
Center, USDA; Peoria, Illinois.  
Received June 1983.

United States. Collected October 06, 1982. Along  
railroad track, Route 6, East of elevator, Anawan,  
Illinois. Wild. Seed.

478309. *Helianthus mollis* Lam. (Asteraceae) Ashy sunflower.

From United States. Collected by I. M. Cull; Horticultural and  
Special Crops Laboratory, Northern Regional Research  
Center, USDA; Peoria, Illinois.  
Received June 1983.

United States. Collected October 06, 1982. Knox College  
prairie planting near Dahinda, Illinois. Wild. Seed.

478310. *Amaranthus tricolor* L. (Amaranthaceae).

From China, Peoples Repub of. Collected by T.J. Orton; Department  
of Vegetable Crops, University of California; Davis,  
California, USA. Received through The 1980 US Plant  
Germplasm Team to Peoples Republic of China.  
Received May 1983.

O 53. China, Peoples Repub of. Collected August 05, 1980.  
Wild Geese Peoples Commune, east of Lanzhou, Gansu.  
Locally grown type. Plants 25-30cm at maturity. Leaves  
deep purple. Flowers borne on central raceme. Flower buds  
consumed in soups. Cultivated. Seed.

478311 TO 478319. *Apium graveolens* var. *dulce* (Mill.) Pers. (Apiaceae)  
Celery.

From China, Peoples Repub of. Collected by T.J. Orton; Department  
of Vegetable Crops, University of California; Davis,



478311 TO 478319-continued

California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478311. O 2. China, Peoples Repub of. Beijing. Inst. of Veg. Crops, Nat. Academy of Agri. Science. Collected July 25, 1980. Local type. Cultivated. Seed.
478312. O 3. China, Peoples Repub of. Beijing. Inst. of Veg. Crops, Nat. Academy of Agri. Science. Collected July 25, 1980. Local type. Cultivated. Seed.
478313. O 5. China, Peoples Repub of. Collected July 29, 1980. Evergreen Peoples Commune, 8km northwest of Beijing. Local type. Cultivated. Seed.
478314. O 18. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km west of Xirinhot, Inner Mongolia. Cultivated. Seed.
478315. O 35. China, Peoples Repub of. Huhehot, Inner Mongolia. Institute of Vegetables. Collected August 01, 1980. Local type. Cultivated. Seed.
478316. O 49. China, Peoples Repub of. Collected August 05, 1980. Wild Geese Peoples Commune, east of Lanzhou, Gansu. Typical local type. Cultivated. Seed.
478317. O 50. China, Peoples Repub of. Collected August 05, 1980. Wild Geese Peoples Commune, east of Lanzhou, Gansu. Typical local type. Cultivated. Seed.
478318. O 51. China, Peoples Repub of. Collected August 05, 1980. Wild Geese Peoples Commune, east of Lanzhou, Gansu. Typical local type. Cultivated. Seed.
478319. O 111. China, Peoples Repub of. Collected August 15, 1980. Stone River General Farm, produced in west central Sinkiang. Cultivated. Seed.

478320 TO 478322. *Brassica campestris* L. (Brassicaceae) Bird rape.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478320. O 90. China, Peoples Repub of. Collected August 12, 1980. South, 15km of Urumchi. 950m. Plants 50-70cm at maturity. Leaves succulent, variable. Stem pith hollow, stringy. Pods large, robust. Some roots nematode-infected.

478320 TO 478322-continued  
Cultivated. Seed.

478321. O 105. China, Peoples Repub of. Collected August 15, 1980. Stone River General Farm, grown in west central Sinkiang. Cultivated. Seed.

478322. O 106. China, Peoples Repub of. Collected August 15, 1980. Stone River General Farm, grown in west central Sinkiang. Cultivated. Seed.

478323 TO 478324. *Brassica chinensis* L. (Brassicaceae).

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478323. O 44. China, Peoples Repub of. Collected August 05, 1980. Wild Geese Peoples Commune, Lanzhou, Gansu. Local leafy vegetable type. Cultivated. Seed.

478324. O 117. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. Leaves long, slender. Petioles thick, white at harvest (50-60 days). Local open-pollinated type. Local name Feather leaf (Bok Choy). Cultivated. Seed.

478325 TO 478338. *Brassica juncea* (L.) Czern. & Coss. (Brassicaceae)  
Indian mustard.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478325. O 22. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km west of Xirinhote, Inner Mongolia. Cultivated. Seed.

478326. O 61. China, Peoples Repub of. Collected August 08, 1980. North, 25km of Lanzhou, Gansu. 1600m. Plants variable, 300-500cm, uneven maturity. Yield and stand poor. Cultivated. Seed.

478327. O 62. China, Peoples Repub of. Collected August 08, 1980. Km marker 196-205, along road between Urumchi and Stone River, Sinkiang. 600m. Variable seed size, pod set, seeds per pod and pod density. Escaped cultivated types showing signs of reversion to wild. Seeds brown and/or yellow.

478325 TO 478338-continued  
Cultivated. Seed.

478328. O 63. China, Peoples Repub of. Collected August 08, 1980. Km marker 196-205, along road between Urumchi and Stone River, Sinkiang. 600m. Variable seed size, pod set, seeds per pod and pod density. Escaped cultivated types showing signs of reversion to wild. Seeds brown and/or yellow. Cultivated. Seed.
478329. O 64. China, Peoples Repub of. Collected August 08, 1980. Km marker 196-205, along road between Urumchi and Stone River, Sinkiang. Variable seed size, pod set, seeds per pod and pod density. Escaped cultivated types showing signs of reversion to wild. Seeds brown and/or yellow. Cultivated. Seed.
478330. O 65. China, Peoples Repub of. Collected August 08, 1980. Km marker 196-205, along road between Urumchi and Stone River, Sinkiang. Variable seed size, pod set, seeds per pod and pod density. Escaped cultivated types showing signs of reversion to wild. Seeds brown and/or yellow. Cultivated. Seed.
478331. O 66. China, Peoples Repub of. Collected August 08, 1980. Km marker 196-205, along road between Urumchi and Stone River, Sinkiang. Variable seed size, pod set, seeds per pod and pod density. Escaped cultivated types showing signs of reversion to wild. Seeds brown and/or yellow. Cultivated. Seed.
478332. O 67. China, Peoples Repub of. Collected August 08, 1980. Km marker 196-205, along road between Urumchi and Stone River, Sinkiang. Variable seed size, pod set, seeds per pod and pod density. Escaped cultivated types showing signs of reversion to wild. Seeds brown and/or yellow. Cultivated. Seed.
478333. O 68. China, Peoples Repub of. Collected August 08, 1980. Km marker 196-205, along road between Urumchi and Stone River, Sinkiang. Variable seed size, pod set, seeds per pod and pod density. Escaped cultivated types showing signs of reversion to wild. Seeds brown and/or yellow. Cultivated. Seed.
478334. O 77. China, Peoples Repub of. Collected August 10, 1980. Southeast, 80km of Urumchi, Sinkiang. 1050m. Cultivated. Seed.
478335. O 78. China, Peoples Repub of. Collected August 10, 1980. Southeast, 40km of Urumchi, Sinkiang. Seeds brown. Cultivated. Seed.
478336. O 83. China, Peoples Repub of. Collected August 11, 1980.

478325 TO 478338-continued

Southeast, 90km of Urumchi, Sinkiang. 1050m. Plants 25-35cm at maturity. Seeds yellow. Cultivated. Seed.

478337. O 85. China, Peoples Repub of. Collected August 12, 1980. South, 15km of Urumchi, Sinkiang. 950m. Volunteer in wheat field. Cultivated. Seed.

478338. O 86. China, Peoples Repub of. Collected August 12, 1980. South, 40km of Urumchi, Sinkiang. 1200m. Volunteer in irrigated ditch. Cultivated. Seed.

478339 TO 478340. *Brassica napus* L. (Brassicaceae) Rape.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478339. O 54. China, Peoples Repub of. Collected August 06, 1980. Campus, Lanzhou Municipal University, Lanzhou, Gansu. Already harvested-exact origin unknown.

478340. O 84. China, Peoples Repub of. Collected August 11, 1980. Urumchi Hotel Compound, Sinkiang. Already harvested-exact origin unknown. Pods long, robust with good yield potential. Seeds brown. Cultivated. Seed.

478341. *Brassica oleracea* var. *botrytis* L. (Brassicaceae) Cauliflower.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

O 121. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. Local open-pollinated type. Cultivated. Seed.

478342 TO 479347. *Brassica oleracea* var. *capitata* L. (Brassicaceae) Cabbage.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478342. O 10. China, Peoples Repub of. Collected July 30, 1980.

478342 TO 478347-continued

Vegetable commune, 5km W of Xirinhot, Inner Mongolia.  
Local type. Cultivated. Seed.

478343. O 47a. China, Peoples Repub of. Lanzhou, Gansu. Lab. of Vegetables, Institute of Horticulture. Collected August 05, 1980. Plants highly variable in heading, leaf morphology, color, and insect (looper) resistance. A storage type. Cultivated. Seed.
478344. O 48. China, Peoples Repub of. Lanzhou, Gansu. Lab. of Vegetables, Institute of Horticulture. Collected August 05, 1980. Small, local type. Cultivated. Seed.
478345. O 104. China, Peoples Repub of. Collected August 15, 1980. West Central Sinkiang, Stone River General Farm. Small, local type for fresh consumption. Cultivated. Seed.
478346. O 119. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. F1 hybrid of local x introduced inbreds. Strong self-incompatibility. Cultivated. Seed.
478347. O 120. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. Local open-pollinated type. Cultivated. Seed.

478348 TO 478349. *Brassica pekinensis* (Lour.) Rupr. (Brassicaceae)  
Chinese cabbage.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China.  
Received May 1983.

478348. O 20. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km W of Xirinhot, Inner Mongolia. Local type. Cultivated. Seed.
478349. O 118. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. Plants small rosette of succulent, ovoid leaves and fleshy petioles at harvest (30-40 days). Open-pollinated type. Local name Chicken feather. Cultivated. Seed.

478350. *Brassica rapa* L. (Brassicaceae) Turnip.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant

478350-continued

Germlasm Team to Peoples Republic of China.  
Received May 1983.

O 16. China, Peoples Repub of. Collected July 30, 1980.  
Vegetable commune, 5km W of Xirinhhot, Inner Mongolia.  
Local type. Cultivated. Seed.

478351 TO 478361. *Capsicum annuum* L. (Solanaceae).

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germlasm Team to Peoples Republic of China.  
Received May 1983.

478351. O 19. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km W of Xirinhhot, Inner Mongolia. Local type. Hotter than standard U.S. bell types. Cultivated. Seed.
478352. O 37. China, Peoples Repub of. Huhehot, Inner Mongolia. Institute of Vegetables. Collected August 01, 1980. Shanghai Municipality breeding program. Plants virus-free. Yield uniform, good. Fruit shape good. Flesh thick. Cultivated. Seed.
478353. O 38. China, Peoples Repub of. Huhehot, Inner Mongolia. Institute of Vegetables. Collected August 01, 1980. Local type. Cultivated. Seed.
478354. O 47. China, Peoples Repub of. Collected August 05, 1980. Wild Geese Peoples Commune, east of Lanzhou, Gansu. Local type. Cultivated. Seed.
478355. O 79. Tientsin Hot Red Long. China, Peoples Repub of. Collected August 10, 1980. Red Flag Commune, Turfan, Sinkiang. Plants virus-free. Yield poor. Fruits small, green, maturing to red. Cultivated. Seed.
478356. O 80. China, Peoples Repub of. Collected August 11, 1980. Red Flag Commune, Turfan, Sinkiang. Local presumably sweet bell type. Cultivated. Seed.
478357. O 93. China, Peoples Repub of. Urumchi, Sinkiang. Provincial Academy of Agricultural Sciences. Collected August 13, 1980. Local sweet/hot green bell type. Cultivated. Seed.
478358. O 94. China, Peoples Repub of. Urumchi, Sinkiang. Provincial Academy of Agricultural Sciences. Collected August 13, 1980. Local, long, hot red type for drying. Cultivated. Seed.

478351 TO 478361-continued

478359. O 108. China, Peoples Repub of. Collected August 15, 1980. Stone River General Farm, grown in west central Sinkiang. Local type. Fruits green. Cultivated. Seed.
478360. O 109. China, Peoples Repub of. Collected August 15, 1980. Stone River General Farm, grown in west central Sinkiang. Local type. Fruits hot, drying type. Cultivated. Seed.
478361. O 110. China, Peoples Repub of. Collected August 15, 1980. Stone River General Farm, grown in west central Sinkiang. Local type. Fruits hot, long, red. Cultivated. Seed.

478362. *Carum carvi* L. (Apiaceae) Caraway.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

O 48a. China, Peoples Repub of. Collected August 05, 1980. With turf sod at Lanzhou Mun. Univ., from Qiliang Mt., 500km NW of Lanzhou. Plants 90cm tall. Alpine grassland ecosystem. Grazed by sheep. Wild. Seed.

478363. *Colocasia esculenta* (L.) Schott (Araceae) Taro.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

O 12. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km W of Xirinhote, Inner Mongolia. Cultivated. Seed.

478364 TO 478366. *Cucumis sativus* L. (Cucurbitaceae) Cucumber.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478364. O 14. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km west of Xirinhote, Inner Mongolia.

478364 TO 478366-continued  
Cultivated. Seed.

478365. O 36. Tientsin #3. China, Peoples Repub of. Huhehot, Inner Mongolia. Institute of Vegetables. Collected August 01, 1980. Fruit oblong 6 x 30cm. Resistant to leaf spot and virus. Cultivated. Seed.

478366. O 106a. China, Peoples Repub of. Collected August 15, 1980. West Central Sinkiang, Stone River General Farm. Local name Chinese cucumber. Cultivated. Seed.

478367. *Cucurbita pepo* L. (Cucurbitaceae) Pumpkin.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

O 52. China, Peoples Repub of. Lanzhou, Gansu. Lab. of Vegetables, Institute of Agriculture. Collected August 05, 1980. Fruits highly variable. Local type. Cultivated. Seed.

478368 TO 478369. *Daucus carota* L. subsp. *carota* (Apiaceae) Wild carrot.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478368. O 58. China, Peoples Repub of. Collected August 07, 1970. One km downstream of Liu Family Reservoir near Lanzhou, Gansu. Plants erect, 90cm tall. Umbels small, mature. Wild. Seed.

478369. O 71. China, Peoples Repub of. Collected August 09, 1980. Boggy grassland near Chou En Lai Monument, Stone River, Sinkiang. Flowers mixed white and pink. Wild. Seed.

478370. *Daucus carota* subsp. *sativus* (Hoffm.) Arcang. (Apiaceae) Carrot.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.



478370-continued

O 70. China, Peoples Repub of. Collected August 09, 1980. Vegetable plots, Stone River Farm 158, Sinkiang. Plants 40-50cm. Tap root small, yellow. Cultivated. Seed.

478371 TO 478377. *Lycopersicon esculentum* Mill. (Solanaceae) Tomato.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478371. O 15. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km west of Xirinhot, Inner Mongolia. Local type. Cultivated. Seed.

478372. O 34. 224. China, Peoples Repub of. Huhehot, Inner Mongolia. Institute of Vegetables. Collected August 01, 1980. Maturity early. Fruits small, pink-red, uniform maturity, high yielding. Cultivated. Seed.

478373. O 82. China, Peoples Repub of. Collected August 11, 1980. Red Flag Peoples Commune, Turfan, Sinkiang. Plants short viny type, poor yield. Fruits irregularly sized and shaped, pale red, maturity variable. Infected with tobacco mosaic and other viruses. Local type. Cultivated. Seed.

478374. O 107. China, Peoples Repub of. Collected August 15, 1980. Stone River General Farm, Sinkiang. Cultivated. Seed.

478375. O 115. Pou hang #1. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. F1 hybrid of Homestead x local inbreds (hand crossed). Plants pole type. Fruits red, high solids, fresh and processing markets. Most popular Shanghai cultivar. Cultivated. Seed.

478376. O 116. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. F1 hybrid of Homestead x local inbreds (hand crossed). Characteristics unknown. Cultivated. Seed.

478377. O 122. China, Peoples Repub of. Collected August 18, 1980. General farm, Stone River, Sinkiang. Local type. Cultivated. Seed.

478378 TO 478379. *Petroselinum crispum* (Mill.) Nym. ex A. W. Hill

**478378 TO 478379--continued**  
**(Apiaceae) Parsley.**

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478378. O 21. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km west of Xirinhot, Inner Mongolia. Cultivated. Seed.

478379. O 45. China, Peoples Repub of. Collected August 05, 1980. Wild Geese Peoples Commune, Lanzhou, Gansu. Local type. Cultivated. Seed.

**478380 TO 478382. Phaseolus vulgaris L. (Fabaceae) Garden bean.**

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478380. O 72. China, Peoples Repub of. Collected August 09, 1980. Boggy grassland near Chou En Lai Monument, Stone River, Sinkiang. Local pole type. Cultivated. Seed.

478381. O 95. China, Peoples Repub of. Urumchi, Sinkiang. Provincial Academy of Agric. Sciences. Collected August 13, 1980. Reportedly developed locally in Urumchi area. Cultivated. Seed.

478382. O 114. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. Local type. Cultivated. Seed.

**478383 TO 478384. Pisum sativum L. (Fabaceae) Garden pea.**

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

478383. O 56. China, Peoples Repub of. Collected August 07, 1980. Roadside, 24km NW Lanzhou, Gansu. 2350m. Cultivated. Seed.

478384. O 92. China, Peoples Repub of. Collected August 12, 1980. Grassland meadow, South Mountain, 60km south of Urumchi, Sinkiang. 2100m. Low vine. Seeds bitter, 3-6 per pod. Wild. Seed.

478385 TO 478387. *Raphanus sativus* L. (Brassicaceae) Radish.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

- 478385. O 17. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km west of Xirinhhot, Inner Mongolia. Local type.
- 478386. O 39. China, Peoples Repub of. Huhehot, Inner Mongolia. Institute of Vegetables. Collected August 01, 1980. Root long, thick with purple flesh and green skin. Cultivated. Seed.
- 478387. O 46. China, Peoples Repub of. Collected August 05, 1980. Wild Geese Peoples Commune, Lanzhou, Gansu. Root globular, 3-4cm diameter, flesh and skin green. Local type. Cultivated. Seed.

478388 TO 478392. *Solanum melongena* L. (Solanaceae) Eggplant.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China. Received May 1983.

- 478388. O 11. China, Peoples Repub of. Collected July 30, 1980. Vegetable commune, 5km west of Xirinhhot, Inner Mongolia. Cultivated. Seed.
- 478389. O 33. China, Peoples Repub of. Huhehot, Inner Mongolia. Institute of Vegetables. Collected August 01, 1980. Stems contain little anthocyanin. Fruits oblong, pale. Yield high. Resistant to virus. Local type. Cultivated. Seed.
- 478390. O 81. China, Peoples Repub of. Collected August 11, 1980. Red Flag Peoples Commune, Turfan, Sinkiang. Plants robust, poor yield, no disease symptoms. Fruits small, globular, unevenly sized, flesh white and purple. Cultivated. Seed.
- 478391. O 96. China, Peoples Repub of. Urumchi, Sinkiang. Provincial Academy of Agric. Sciences. Collected August 13, 1980. Fruits long, tubular. Reportedly developed locally. Cultivated. Seed.
- 478392. O 125. China, Peoples Repub of. Beijing. Institute of Vegetables, Academy of Agri. Sciences. Collected August 20, 1980. Plants fairly uniform, high yielding. Fruits

478388 TO 478392-continued

large-20cm or more in diameter. Locally developed type.  
Cultivated. Seed.

478393. *Spinacia oleracea* L. (Chenopodiaceae) Spinach.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China.  
Received May 1983.

O 40. China, Peoples Repub of. Huhehot, Inner Mongolia. Institute of Vegetables. Collected August 01, 1980. Leaves round. Cultivated. Seed.

478394 TO 478395. *Vigna unguiculata* subsp. *sesquipedalis* (L.) Verdc. (Fabaceae) Yard-long bean.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China.  
Received May 1983.

478394. O 41. China, Peoples Repub of. Collected August 01, 1980. Friendship Hotel grounds, Lanzhou, Gansu. Received as *V. sinensis*. Cultivated. Seed.

478395. O 73. China, Peoples Repub of. Collected August 09, 1980. Vegetable plots, Stone River Farm 145, Sinkiang. Local type. Cultivated. Seed.

478396 TO 478397. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata* (Fabaceae) Southern pea.

From China, Peoples Repub of. Collected by T.J. Orton; Department of Vegetable Crops, University of California; Davis, California, USA. Received through The 1980 US Plant Germplasm Team to Peoples Republic of China.  
Received May 1983.

478396. O 112. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. Pod red-tipped. Local name Red beak. Introduced type. Cultivated. Seed.

478397. O 113. China, Peoples Repub of. Shanghai. Lab. of Vegetables, Institute of Horticulture. Collected August 16, 1980. Local name Bel. Introduced type. Cultivated. Seed.

478398. *Ornithopus sativus* Brot. (Fabaceae) Serradella.

From German Democratic Repub. Donated by Reckin, J.; Experimental Garden; Gorkistrasse 20.  
Received June 1983.

Me/Re. German Democratic Repub. Useful as forage and as green manure crop for improving infertile sandy soils.  
Cultivar. Seed.

478399. *Zea mays* subsp. *mexicana* (Schrad.) Iltis (Poaceae) Teosinte.

From Mexico. Donated by J. F. Doebley; Department of Statistics, North Carolina State University; Raleigh, North Carolina, USA.  
Received May 1983.

625. Latitude: 24 deg 04 m N; Longitude: 104 deg 31 m W. Collected October 01, 1982. Three kilometers NE of Alcalde, a pueblito 20km ENE (by air) of Durango. 2050m. In thickets along small stream and irrigation ditch. Rarely on edges of sorghum, pepper, and maize fields. Growing with *Salix*, *Ipomoea*, *Bidens*, *Tithonia*, *Solanum* and *Cosmos*. Plants 1-2m tall, moderately robust. Wild. Seed.

478400 TO 478401. *Vigna radiata* (L.) Wilczek (Fabaceae) Mungbean.

From China, Republic of. Donated by Asian Vegetable Research and Development Center; Shanhua, Tainan 741, Taiwan.  
Received June 1983.

478400. 'Station 46'. Fiji. Lautoka. Ministry of Agriculture and Fisheries. Sel. from VC 1000-45-B (EG-MG-16/ML-3). Demonstrated superior disease resistance. Annual. Cultivar. Seed.

478401. VC 1973A. 'Shanhua'. China, Republic of. CES 1D-21/EG-MG-16. Released in Korea as 'Shanhua'. Annual. Cultivar. Seed.

478402. *Acacia* sp. (Fabaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-148. Bolivia. Collected May 01, 1981. River flood plain. Salty soil. South of Camargc, Pompeya. 2420m.

478402-continued

Plants 3m to 4.5m tall. Goats eat pods. Local name Allgarobo. Tree. Wild. Seed.

478403. *Amaranthus* sp. (Amaranthaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-90. Bolivia. Collected April 26, 1981. Near Capinota, 100km S of Cochabamba, Cochabamba Province. 2450m. Plants mixed with barley, 1.5m tall. Possibly weedy, used for human food. Cultivated. Seed.

478404. *Aristida* sp. (Poaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-143. Bolivia. Collected May 01, 1981. Arid site, S of Camargo, near Becia, Chuquisaca Province. 2400m. Soil red. Growing only where protected by cactus. Wild. Seed.

478405. *Bouteloua* sp. (Poaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-80. Bolivia. Collected April 25, 1981. High mountain pass, dry, 65km E of Cochabamba, Cochabamba Province. 3000m. Plants about 5cm tall. Wild. Seed.

478406 TO 478407. *Chenopodium pallidicaule* Aellen (Chenopodiaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478406. R-62. 'Laste rosada'. Bolivia. Patacamaya, La Paz

478406 TO 478407-continued

Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta - sample No. 10. Seeds high in protein, used in human food. Local name Canahua. Cultivar. Seed.

478407. R-63. 'Saihua morada'. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta - sample No. 360. Seeds high in protein, used in food. Local name Canahua. Cultivar. Seed.

478408 TO 478418. *Chenopodium quinoa* Willd. (Chenopodiaceae) Quinoa.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478408. R-64. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta. Local name Quaslala. Cultivar. Seed.

478409. R-65. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta. Local name Quellu. Cultivar. Seed.

478410. R-66. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta. Local name Quehueca. Cultivar. Seed.

478411. R-67. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta. Local name Quecuito. Cultivar. Seed.

478412. R-68. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta. Local name Pasankalla. Cultivar. Seed.

478413. R-69. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta. Local name Puka. Cultivar. Seed.

478414. R-70. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Donated by H. Mendieta. Local name Qulli. Cultivar. Seed.

478415. R-71. Bolivia. Patacamaya, La Paz Province. Patacamaya

478408 TO 478418-continued

Experiment Station. Collected April 24, 1981. 3800m.  
Donated by H. Mendieta. Local name Yana. Cultivar. Seed.

478416. R-72. Bolivia. Patacamaya, La Paz Province. Patacamaya  
Experiment Station. Collected April 24, 1981. 3800m.  
Donated by H. Mendieta. Local name Janko. Cultivar. Seed.

478417. R-73. Bolivia. Patacamaya, La Paz Province. Patacamaya  
Experiment Station. Collected April 24, 1981. 3800m.  
Donated by H. Mendieta. Local name Sajama. Cultivar. Seed.

478418. R-132. Bolivia. Collected April 30, 1981. Field between  
Betanzos and Chaqui. 3580m. Cultivated. Seed.

478419. *Chloris* sp. (Poaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops  
Research Laboratory, USDA, and Imperial Valley Field  
Station, University of California; Logan, Utah and El  
Centro, California.  
Received September 1981.

R-96. Bolivia. 81. Collected April 26, 1981. Foothills,  
1 km E of Cochabamba, Cochabamba Province. 2800m. Wild.  
Seed.

478420. *Chloris virgata* Sw. (Poaceae) Feather fingergrass.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops  
Research Laboratory, USDA, and Imperial Valley Field  
Station, University of California; Logan, Utah and El  
Centro, California.  
Received September 1981.

R-87. Bolivia. Collected April 26, 1981. South, 96km of  
Cochabamba, near Capinota, Cochabamba Province. 2450m.  
Wild. Seed.

478421. *Cicer arietinum* L. (Fabaceae) Chickpea.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops  
Research Laboratory, USDA, and Imperial Valley Field  
Station, University of California; Logan, Utah and El  
Centro, California.  
Received September 1981.

R-131. Bolivia. Collected April 29, 1981. Farm, dry  
soil, 65km SW of Sucre, Chuquisaca Province. 2600m. Few  
mature seeds. Highly susceptible to diseases. Cultivated.  
Seed.



478422. *Crotalaria* sp. (Fabaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-110. Bolivia. Collected April 29, 1981. Flax field, 10km south of Aiguila, Aiguila Province. 2400m. Wild. Seed.

478423. *Eragrostis* sp. (Poaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-112. Bolivia. 9. Collected April 29, 1981. Flax field, 10km S of Aiguila, Aiguila, Aiguila Province. 2400m. Wild. Seed.

478424 TO 478425. *Festuca* sp. (Poaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478424. R-74. Bolivia. Collected April 25, 1981. Dry lake bed, 10km E of Oruro, Oruro Province. 3650m. Plants 100m from salt flat. Wild. Seed.

478425. R-167. Bolivia. Collected May 02, 1981. Puna. 3620m. Wild. Seed.

478426. *Hordeum* sp. (Poaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-165. Bolivia. Collected May 02, 1981. Pasar Kancha, N of Camargo. 3420m. Soil salty. Plants mixed with alfalfa. Wild. Seed.

478427. *Triticum durum* Desf. (Poaceae) Durum wheat.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478427. R-88. Bolivia. Collected April 26, 1981. Valley, 100km S of Cochabamba, near Capinota, Cochabamba Province. 2450m. Local type. Awns black. Cultivated. Seed.

478428 TO 478433. *Hordeum vulgare* L. (Poaceae) Barley.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478428. R-89. Bolivia. Collected April 26, 1981. Valley, 100km S of Cochabamba, near Capinota, Cochabamba Province. 2450m. Local 6-row type. Aleurone white. Cultivated. Seed.

478429. R-91. Bolivia. Collected April 26, 1981. Valley, 100km S of Cochabamba, near Capinota, Cochabamba Province. 2450m. Local type. Awns white. Aleurone blue. Cultivated. Seed.

478430. R-126. Bolivia. Collected April 29, 1981. Field, 30km SW of Sucre, Chuquisaca Province. 2770m. Two-row type. Awns black. Cultivated. Seed.

478431. R-127. Bolivia. Collected April 29, 1981. Field, 30km SW of Sucre, Chuquisaca Province. 2770m. Six-row type. Aleurone blue. Cultivated. Seed.

478432. R-133. Bolivia. Collected April 30, 1981. Field between Betanzos and Chaqui. 3580m. Cultivated. Seed.

478433. R-141. Bolivia. Collected April 30, 1981. Field, 20km S of Betanzos, near Pacoyo, Potosi Province. 3380m. Cultivated. Seed.

478434. *Linum usitatissimum* L. (Linaceae) Flax.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-111. Bolivia. Collected April 29, 1981. Field, 10km S

478434-continued

of Aiguila. 2400m. Used for medicinal purposes by Indians.  
Cultivated. Seed.

478435 TO 478436. *Lupinus mutabilis* Sweet (Fabaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478435. R-129. Bolivia. Collected April 30, 1981. Sandy field, Chinoli Station, 125km SW of Sucre, Chuquisaca Province. 3300m. Annual precipitation 20 inches. Nodule sample. Cultivated. Seed.

478436. R-139. Bolivia. Collected April 30, 1981. South, 5km of Puna, Potosi Province. 3400m. Cultivated. Seed.

478437. *Lupinus* sp. (Fabaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-57. Bolivia. Collected April 24, 1981. Dry, gravelly soil, 10km S of Alto, near Achocalla, La Paz. 3350m. Lat. 68 deg. N, Long. 17 deg. W. Plants native type, to 0.5m tall, pubescent. Flowers blue. Perennial Herb. Wild. Seed.

478438. *Medicago lupulina* L. (Fabaceae) Black medic.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-60. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected April 24, 1981. 3800m. Wild. Seed.

478439 TO 478440. *Medicago polymorpha* L. (Fabaceae) California burclover.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field

**478439 TO 478440-continued**

Station, University of California; Logan, Utah and El Centro, California.

Received September 1981.

478439. R-58. Bolivia. Collected April 24, 1981. Dry, gravelly soil, 10km S of Alto, near Achocalla, La Paz Province. 3350m. Lat. 68 deg. N, Long. 17 deg. W. Two pod forms. Nodules abundant. Nodule sample. Wild. Seed.

478440. R-82. Bolivia. Collected April 26, 1981. Flood plain, 96km S of Cochabamba, near Capinota, Cochabamba Province. 2450m. Wild. Seed.

**478441 TO 478465. *Medicago sativa* L. (Fabaceae) Alfalfa.**

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.

Received September 1981.

478441. R-75. Bolivia. Collected April 25, 1981. Dry lake bed, 15km E of Oruro, Oruro Province. 3650m. Plants 200m from salt flat, tall, erect. Seeds few. Many blue aphids present. Nodule sample. Cultivated. Seed.

478442. R-83. Bolivia. Collected April 26, 1981. Flood plain, 96km S of Cochabamba, near Capinota, Cochabamba Province. 2450m. Adapted strain of California common used many years in Capinota. Susceptible to many diseases. Local name Capinota. Cultivated. Seed.

478443. R-92. Bolivia. Collected April 26, 1981. Sandy soil, 100km S of Cochabamba near Capinota, Cochabamba Province. 2450m. Plants well-nodulated, tall, erect. Susceptible to *Stemphyllium*, leaf hopper, and aphid. Nodule sample. Cultivated. Seed.

478444. R-93. Bolivia. Collected April 26, 1981. Market, Capinota, Cochabamba Province. Local type. Local name Capinota. Cultivated. Seed.

478445. R-102. Bolivia. Collected April 28, 1981. Heavy, irrigated soil, Punata, 45km E of Cochabamba, Cochabamba Province. 2700m. Common leaf spot, many aphids. Few white nodules. Local name Criolla. Cultivated. Seed.

478446. R-105. Bolivia. Collected April 28, 1981. Heavy, irrigated soil, Punata, 45km E of Cochabamba, Cochabamba Province. 2700m. Badly diseased. Few white nodules. Local name Criolla. Cultivated. Seed.

478441 TO 478465-continued

478447. R-107. Bolivia. Collected April 28, 1981. Irrigated, near Punata, 60km E of Cochabamba, Cochabamba Province. 2760m. Probably originally from Peru. Well-nodulated. Local name Criolla. Cultivated. Seed.
478448. R-118. Bolivia. Collected April 29, 1981. Sandy soil, 11km SW of Sucre, Chuquisaca Province. 2600m. Cultivated. Seed.
478449. R-134. Bolivia. Collected April 30, 1981. Farm, Puna. 3400m. Cultivated. Seed.
478450. R-140. Bolivia. Collected April 30, 1981. South, 20km of Betanzos, Pacoyo, Potosi Province. 3380m. Cultivated. Seed.
478451. R-142. Bolivia. Collected April 30, 1981. Dry field, Muyuquiri, Chuquisaca Province. 3210m. Nodule sample. Cultivated. Seed.
478452. R-144. Bolivia. Collected May 01, 1981. Irrigated, Sestapa, north of Pompeya. 2390m. Few small nodules. Local name Criolla. Cultivated. Seed.
478453. R-146. Bolivia. Collected May 01, 1981. Irrigated, river flood plain, salty soil, south of Camargo, Pompagua. 2420m. Salt tolerant. Local name Criolla. Nodule sample. Cultivated. Seed.
478454. R-149. Bolivia. Collected May 01, 1981. Irrigated field, south of Camargo, near Pompeya. 2425m. Local name Criolla. Nodule sample. Cultivated. Seed.
478455. R-150. Bolivia. Collected May 01, 1981. South of Camargo, near Pompeya. 2460m. Local type. Badly infected with red spider and rust. Local name Pompeya. Nodule sample. Cultivated. Seed.
478456. R-151. Bolivia. Collected May 01, 1981. South of Camargo, near Pompeya. 2460m. Purchased from M. Garzon. Local type. Badly infected with red spider and rust. Local name Pompeya. Cultivated. Seed.
478457. R-152. Bolivia. Collected May 01, 1981. Irrigated field, 5km SE of Pompeya. 2460m. No nodules present. Local name Criolla. Cultivated. Seed.
478458. R-153. Bolivia. Collected May 01, 1981. South of Camargo, near Santana. 2480m. Few nodules. Local name Criolla. Cultivated. Seed.
478459. R-154. Bolivia. Collected May 01, 1981. South of

478441 TO 478465-continued

- Camargo, near Chayaza, Tarija Province. 2500m. Pea aphids present. Local name Criolla. Nodule sample. Cultivated. Seed.
478460. R-155. Bolivia. Collected May 01, 1981. South of Camargo, near Chayaza, Tarija Province. 2540m. Fusarium and pea aphids present. Few nodules. Local name Criolla. Cultivated. Seed.
478461. R-156. Bolivia. Collected May 01, 1981. Heavy, irrigated soil, south of Camargo, near Chayaza, Tarija Province. 2500m. No nodules present. Local name Criolla. Cultivated. Seed.
478462. R-157. Bolivia. Collected May 01, 1981. Irrigated soil, Pampa Grande, N of Tarija, Tarija Province. 2520m. Plants tall, erect. Few nodules. Local name Criolla. Cultivated. Seed.
478463. R-158. Bolivia. Collected May 01, 1981. Irrigated, sandy soil, J. Soruco farm, Carrizal, N of Tarija, Tarija Prov. Plants very tall, erect. Outproduces Moapa. Local name Criolla. Cultivated. Seed.
478464. R-160. Bolivia. Collected May 02, 1981. Tacaquira, 30km N of Camargo, Chuquisaca Province. 3200m. Very dry seed field. Local name Criolla. Dessicated nodule sample. Cultivated. Seed.
478465. R-164. Bolivia. 81. Collected May 02, 1981. Farm, Pasar Kancha, N of Camargo. 3420m. Salt tolerant. Local name California. Nodule sample. Cultivated. Seed.

478466 TO 478467. *Medicago* sp. (Fabaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478466. R-109. Bolivia. Collected April 29, 1981. Field, 10km S of Aiquila, Aiquila Province. 2400m. Probably *M. polymorpha*. Under crop in flax field. Wild. Seed.
478467. R-163. Bolivia. Collected May 02, 1981. Arid range, 50km N of Camargo, Chuquisaca Province. 3380m. Wild. Seed.

478468. *Melilotus alba* Medik. (Fabaceae) White sweetclover.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops

**478468-continued**

Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.

Received September 1981.

R-145. Bolivia. Collected May 01, 1981. Irrigated flood plain, salty soil, S of Camargo, Pompayua. 2420m. Salt tolerant. Nodule sample. Cultivated. Seed.

**478469. Muhlenbergia sp. (Poaceae).**

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.

Received September 1981.

R-95. Bolivia. Collected April 26, 1981. Foothills, 1 km E of Cochabamba, Cochabamba Province. 2800m. Wild. Seed.

**478470 TO 478471. Paspalum sp. (Poaceae).**

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.

Received September 1981.

478470. R-113. Bolivia. Collected April 29, 1981. Irrigated pasture, 10km S of Aiguila. 2100m. Cultivated. Seed.

478471. R-114. Bolivia. Collected April 29, 1981. Irrigated pasture, 10km S of Aiguila. 2100m. Cultivated. Seed.

**478472 TO 478474. Pennisetum sp. (Poaceae).**

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.

Received September 1981.

478472. R-77. Bolivia. Collected April 25, 1981. High mountain pass, 65km E of Cochabamba, Cochabamba Province. 3000m. Wild. Seed.

478473. R-116. Bolivia. Collected April 29, 1981. Near Paccha, 25km N of Sucre, Chuquisaca Province. 2620m. Weed in vicinity of Sucre. Wild. Seed.

478472 TO 478474-continued

478474. R-160. Bolivia. Collected May 02, 1981. Tacaguira, 30km N of Camargo, Chuquisaca Province. 3200m. Wild. Seed.

478475. *Pisum sativum* L. (Fabaceae) Garden pea.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-120. Bolivia. Collected April 29, 1981. Field, 11km SW of Sucre, Chuquisaca Province. 2600m. Cultivated. Seed.

478476. *Poa andina* Trin. (Poaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-162. Bolivia. Collected May 02, 1981. Arid range, 50km N of Camargo, Chuquisaca Province. 3380m. Wild. Seed.

478477. *Pyracantha* sp. (Rosaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-86. Bolivia. Collected April 26, 1981. Near Capinota, 96km from Cochabamba, Capinota, Cochabamba Province. 2450m. Native tree. Fruits black. Seed.

478478. *Rhynchelytrum repens* (Willd.) C. E. Hubb. (Poaceae) Natalgrass.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-98. Bolivia. Collected April 26, 1981. Arid foothills, 1 km E of Cochabamba, Cochabamba Province. 2800m. Wild. Seed.



**478479 TO 478480. *Schinus* sp. (Anacardiaceae).**

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478479. R-84. Bolivia. Collected April 26, 1981. South, 96km of Cochabamba, near Capinota, Cochabamba Province. 2450m. Native. Pepper tree (molle). Ornamental in California. Wild. Seed.

478480. R-103. Bolivia. 81. Collected April 28, 1981. Punata, 45km E of Cochabamba. 2700m. Pepper tree. Cultivated. Seed.

**478481 TO 478482. *Setaria* sp. (Poaceae).**

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478481. R-81. Bolivia. Collected April 25, 1981. High mountain pass, dry, 65km E of Cochabamba, Cochabamba Province. 3000m. West aspect. Wild. Seed.

478482. R-108. Bolivia. Collected April 28, 1981. East, 15km of Punata, Cochabamba Province. 2800m. Wild. Seed.

**478483. *Solanum juzepczukii* Buk. (Solanaceae).**

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-209. Chuncho. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected May 12, 1981. 3800m. Donated by H. Mendieta. Cultivar. Tubers.

**478484. *Solanum tuberosum* subsp. *andigena* (Juz. & Buk.) Hawkes (Solanaceae).**

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.

478484-continued

Received September 1981.

R-208. Sani-imilla. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected May 12, 1981. 3800m. Donated by H. Mendieta. Received as *Solanum andigenum*. Cultivar. Tubers.

478485. *Solanum* sp. (Solanaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-125. Bolivia. Collected April 29, 1981. Southwest, 30km of Sucre, Chuquisaca Province. 2770m. Shrub. Cultivated. Seed.

478486. *Sporobolus poiretti* (Roem. & Schult.) Hitchc. (Poaceae)  
Smutgrass.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-99. Bolivia. Collected April 26, 1981. Arid foothills, 1 km E of Cochabamba, Cochabamba Province. 2800m. Wild. Seed.

478487 TO 478492. *Stipa* sp. (Poaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478487. R-79. Bolivia. Collected April 25, 1981. High mountain pass, dry, 65km E of Cochabamba, Cochabamba Province. 3000m. Wild. Seed.

478488. R-97. Bolivia. Collected April 26, 1981. Arid foothills, 1 km E of Cochabamba, Cochabamba Province. 2800m. Wild. Seed.

478489. R-121. Bolivia. Collected April 29, 1981. Southwest, 24km of Sucre, Chuquisaca Province. 2760m. Wild. Seed.

478487 TO 478492-continued

478490. R-122. Bolivia. Collected April 29, 1981. Southwest, 24km of Sucre, Chuquisaca Province. 2760m. Wild. Seed.
478491. R-159. Bolivia. Collected May 02, 1981. Tacaguira, 30km N of Camargo, Chuquisaca Province. 3200m. Wild. Seed.
478492. R-161. Bolivia. Collected May 02, 1981. North, 50km of Camargo, Chuquisaca Province. 3380m. Arid range. Wild. Seed.

478493. *Trifolium* sp. (Fabaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-61. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. 3800m. Plants very mature, few seeds.  
Received as *T. album*. Wild. Seed.

478494 TO 478500. *Triticum aestivum* L. (Poaceae) Common wheat.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478494. R-106. Bolivia. Collected April 28, 1981. Field, 10km NE of Punata, Cochabamba Province. 2750m. Mixed head type. Received as *T. vulgare*. Landrace. Seed.
478495. R-115. Bolivia. Collected April 29, 1981. Field, near Paccha, 25km N of Sucre, Chuquisaca Province. Received as *T. vulgare*. Cultivated. Seed.
478496. R-119. Bolivia. Collected April 29, 1981. Field, 11km SW of Sucre, Chuquisaca Province. 2600m. Received as *T. vulgare*. Cultivated. Seed.
478497. R-123. Bolivia. Collected April 29, 1981. Field, 24km SW of Sucre, Chuquisaca Province. 2760m. Received as *T. vulgare*. Cultivated. Seed.
478498. R-124. Bolivia. Collected April 29, 1981. Farm, 24km SW of Sucre, Chuquisaca Province. 2760m. Received as *T. vulgare*. Cultivated. Seed.

478494 TO 478500-continued

478499. R-130. Chinoli 70. Bolivia. Collected April 30, 1981. Field, Chinoli Station, 125km SW of Sucre, Chuquisaca Province. 3300m. Received as *T. vulgare*. Cultivar. Seed.
478500. R-138. Bolivia. Collected April 30, 1981. South, 4.5km of Puna, Potosi Province. 3400m. Received as *T. vulgare*. Cultivated. Seed.

478501 TO 478504. Undetermined (Asteraceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478501. R-85. Bolivia. South, 96km of Cochabamba, near Capinota, Cochabamba Province. 2450m. Possibly *Helianthus*. Plants attractive, but possibly very weedy. Wild. Seed.
478502. R-94. Bolivia. Collected April 26, 1981. Market, Capinota, Cochabamba Province. Local type. Leaves used in "hot sauce" with chili peppers and green tomatoes. Wild. Seed.
478503. R-104. Bolivia. Collected April 28, 1981. Punata, 45km E of Cochabamba, Cochabamba Province. 2700m. Possibly *Helianthus* sp. Wild. Seed.
478504. R-117. Bolivia. Collected April 29, 1981. Near Paccha, 25km N of Sucre, Chuquisaca Province. 2620m. Probably *Helianthus*. Wild. Seed.

478505 TO 478506. *Vicia faba* L. (Fabaceae) Broadbean.

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478505. R-210. Uchuculu. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected May 12, 1981. 3800m. Donated by H. Mendieta. Cultivar. Seed.
478506. R-211. Pairumani. Bolivia. Patacamaya, La Paz Province. Patacamaya Experiment Station. Collected May 12, 1981. 3800m. Donated by H. Mendieta. Cultivar. Seed.

478507. *Vicia* sp. (Fabaceae).

From Bolivia. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-78. Bolivia. Collected April 25, 1981. Dry, rocky, high mountain pass, 65km E of Cochabamba, Cochabamba Province. 3000m. Many seeds present. Nodule sample. Wild. Seed.

478508. *Lolium multiflorum* Lam. (Poaceae) Italian ryegrass.

From Ecuador. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-271. Ecuador. Collected May 19, 1981. Roadside, 10km S of Quito. 2500m. Landrace. Seed.

478509. *Lupinus* sp. (Fabaceae).

From Ecuador. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-270. Ecuador. Collected May 19, 1981. Roadside, 10km S of Quito. 2500m. Wild. Seed.

478510 TO 478511. *Medicago sativa* L. (Fabaceae) Alfalfa.

From Ecuador. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478510. R-268. 'Nacional'. Ecuador. Quito. Santa Catalina Experiment Station. Collected May 19, 1981. Donated by M. Sanchez. Stems tall, coarse, purplish and pubescent. Best adapted cultivar for northern Ecuador. Cultivar. Seed.

478511. R-269. San Pedro. Ecuador. Quito. Santa Catalina Experiment Station. Collected May 19, 1981. Donated by M. Sanchez. Originally from Peru. Hairy summer ecotype.

478510 TO 478511-continued

Plants tall, erect, large leaflets and long internodes.  
Cultivar. Seed.

478512 TO 478513. *Bromus unioloides* H.B.K. (Poaceae) Rescuegrass.

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478512. R-171. Peru. Puno. Univeridade Nacional Technica del Altiplano. Collected May 06, 1981. 3835m. Plants in field trial plot, badly infected with smut. Cultivated. Seed.

478513. R-222. Peru. Collected May 15, 1981. Mountain meadow, between Catac and Conococha. 3900m. Received as *B. catharticus*. Cultivated. Seed.

478514. *Crotalaria* sp. (Fabaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-216. Peru. Collected May 14, 1981. Arid, rocky site, Mato, north of Huaraz. 2000m. Seed.

478515. *Eragrostis curvula* (Schrad.) Nees (Poaceae) Weeping lovegrass.

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-169. Peru. Collected May 06, 1981. Nursery, Puno. 3835m. Field trial plot. Cultivated. Seed.

478516. *Eragrostis* sp. (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478516-continued

R-218. Peru. Arid, rocky site, Mato, north of Huaraz.  
2000m. Used for cattle grazing. Wild. Seed.

478517 TO 478518. *Festuca dolichophylla* Presl (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478517. R-176. Peru. Puno. Univeridade Nacional Technica del Altiplano. Collected May 06, 1981. 3835m. Field trial plot. Local name Chillihua. Cultivated. Seed.

478518. R-223. Peru. Collected May 15, 1981. Mountain meadow, between Catac and Conococha. 3900m. Palatable. Wild. Seed.

478519. *Festuca weberbaueri* Pilger (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-174. Peru. Puno. Univeridade Nacional Technica del Altiplano. Collected May 06, 1981. 3835m. Field trial plot. Cultivated. Seed.

478520. *Helianthus* sp. (Asteraceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-221. Peru. Collected May 14, 1981. Huayles, north of Huaraz. Wild. Seed.

478521 TO 478526. *Lupinus mutabilis* Sweet (Fabaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478521. R-180. Peru. Puno. Univeridade Nacional Technica del Altiplano. Collected May 06, 1981. 3835m. Field trial plot. Seeds white. Nodule sample. Cultivated. Seed.

478521 TO 478526--continued

478522. R-181. Peru. Puno. Univeridade Nacional Technica del Altiplamo. Collected May 06, 1981. 3835m. Field trial plot. Nodule sample. Cultivated. Seed.
478523. R-182. Peru. Puno. Univeridade Nacional Technica del Altiplamo. Collected May 06, 1981. 3835m. Field trial plot. Medium maturity ecotype. Nodule sample. Cultivated. Seed.
478524. R-183. Peru. Puno. Univeridade Nacional Technica del Altiplamo. Collected May 06, 1981. 3835m. Field trial plot. Early maturity ecotype. Nodule sample. Cultivated. Seed.
478525. R-184. Peru. Puno. Univeridade Nacional Technica del Altiplamo. Collected May 06, 1981. 3835m. Field trial plot. Plants 2m tall. Racemes mixed white and blue. Nodule sample. Cultivated. Seed.
478526. R-185. Peru. Puno. Univeridade Nacional Technica del Altiplamo. Collected May 06, 1981. 3835m. Field trial plot. Late maturity ecotype. Nodule sample. Cultivated. Seed.

478527 TO 478529. *Lupinus* sp. (Fabaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478527. R-179. Peru. Puno. Univeridade Nacional Technica del Altiplamo. Collected May 06, 1981. 3835m. Field trial plot. Wild type native to Peru. Annual. Cultivated. Seed.
478528. R-207. Peru. Collected May 11, 1981. Near Lake Titicaca, 6km S of Ilave. 3840m. Well nodulated. Nodule sample. Wild. Seed.
478529. R-226. Peru. Collected May 15, 1981. South, 10km of Chiquian. 3500m. Plants tall. Nodule sample. Perennial Herb. Wild. Seed.

478530 TO 478531. *Medicago polymorpha* L. (Fabaceae) California burclover.

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El



478530 TO 478531-continued  
Centro, California.  
Received September 1981.

478530. R-168. Peru. Camacani. Centro Experimental Camacani, UNTA. Collected May 05, 1981. 3830m. Donated by J. Machicao. Volunteer aftermath crop in dryland wheat field. Nodule sample. Wild. Seed.
478531. R-220. Peru. Collected May 14, 1981. Weed on bank adjacent to alfalfa field. Wild. Seed.

478532 TO 478573. *Medicago sativa* L. (Fabaceae) Alfalfa.

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478532. R-186. Peru. Collected May 07, 1981. Sandy, irrigated soil, 10km NW of Arequipa, near El Cural. 2250m. Neither young nor old plants had nodules. Local name Yaragua. Cultivated. Seed.
478533. R-187. Peru. Collected May 07, 1981. Market, Arequipa. Local type, grown in Omate. Adapted to high altitude. Local name Omate. Cultivated. Seed.
478534. R-188. Peru. Collected May 07, 1981. Market, Arequipa. Local type. Adapted to low altitude. Local name Caravali. Cultivated. Seed.
478535. R-189. Peru. Collected May 07, 1981. Market, Arequipa. Local type. Possibly adaptable to SW US desert. Local name Yaragua. Cultivated. Seed.
478536. R-195. Peru. Collected May 08, 1981. Farm, sandbar, Tambo River valley, 100km SW of Arequipa. 220m. Local name Tambo. Cultivated. Seed.
478537. R-201. Peru. Collected May 09, 1981. T. Chocano O. farm, Samba River Valley, Sama, 35km N of Tacna. 620m. Mixed field and farm collection. Soil medium salty. Resistant to root rot. Nodules large, numerous. Local name Curibaya. Cultivated. Seed.
478538. R-212. Peru. Collected May 14, 1981. Market, Huaraz, north of Lima. 2500m. Summer ecotype. Grown in Macate. Stems pubescent. Local name Macate. Cultivated. Seed.
478539. R-214. Peru. Collected May 14, 1981. Market, Tinguá, north of Huaraz. Non-dormant type. Plants variable. Stems

478532 TO 478573-continued

- not as pubescent as San Pedro. Local name Boba San Pedro. Winter Annual. Cultivated. Seed.
478540. R-215. Peru. Collected May 14, 1981. Market, Tingua, north of Huaraz. Local name Macate. Cultivated. Seed.
478541. R-219. Peru. Collected May 14, 1981. Market, Huaylas, north of Huaraz. Non-dormant type. Plants tall, erect, not very pubescent. Nodules small, white. Ecotype grown in remote valley. Local name Huaylas. Nodule sample. Winter Annual. Cultivated. Seed.
478542. R-225. Peru. Collected May 15, 1981. Farm, 25km from Chiquian. 3500m. Non-dormant type. Local name Llaclla. Winter Annual. Cultivated. Seed.
478543. R-227. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Southern highlands of Tacna, near Curibaya. Donated by R. Zambrano. Non-dormant type. Resistant to leaf diseases and rust. Local name Tarahuay. Winter Annual. Cultivated. Seed.
478544. R-228. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Quinistaguillas southern highlands, Moquegua. Donated by R. Zambrano. Non-dormant type. Local name Santa Cruz. Winter Annual. Cultivated. Seed.
478545. R-229. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano. Non-dormant type. Local name Sama Grande. Winter Annual. Cultivated. Seed.
478546. R-230. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Sama River Valley. Donated by R. Zambrano. Non-dormant type. Salt tolerant. Local name Salada Grande. Winter Annual. Cultivated. Seed.
478547. R-231. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Southern highlands. Donated by R. Zambrano. Non-dormant type. Resistant to leaf diseases. Local name Sarria. Winter Annual. Cultivated. Seed.
478548. R-232. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Highlands, north of Tacna. Donated by R. Zambrano. Non-dormant type. Resistant to leaf hopper and leaf diseases. Local name Huanara. Winter Annual. Cultivated. Seed.
478549. R-233. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano. Dormant type. Stems branched. Local name Pallasca. Annual.

478532 TO 478573-continued  
Cultivated. Seed.

478550. R-235. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Central highlands near Huaylas. Donated by R. Zambrano. Non-dormant type. Local name Rancap. Winter Annual. Cultivated. Seed.
478551. R-236. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano. Local name Cullaspurro. Cultivated. Seed.
478552. R-237. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. San Jose. Donated by R. Zambrano. Local name San Jose. Cultivated. Seed.
478553. R-238. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Omate highlands, Moquegua Department. Donated by R. Zambrano. Leaflets large. Many nodes per stem. Resistant to leaf diseases. Local name San Francisco. Cultivated. Seed.
478554. R-239. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano. Dormant type. Local name Mochona. Annual. Cultivated. Seed.
478555. R-240. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Highlands near Moquegua. Donated F. Zambrano. Non-dormant type. Local name Pachas. Winter Annual. Cultivated. Seed.
478556. R-241. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Highlands, Moquegua. Donated by R. Zambrano. Non-dormant type. Local name Coro. Winter Annual. Cultivated. Seed.
478557. R-242. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Highlands, Moquegua. Donated by R. Zambrano. Resistant to leaf diseases. Local name Moro Moro. Cultivated. Seed.
478558. R-243. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Coastal area. Donated by R. Zambrano. Susceptible to leaf miner. Local name Monsefu. Cultivated. Seed.
478559. R-244. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Vitor highlands, near Arequipa. Donated by R. Zambrano. Non-dormant type. Local name Vitor. Winter Annual. Cultivated. Seed.
478560. R-245. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano.

478532 TO 478573-continued

Non-dormant type. Plants leafy. Local name Locumba.  
Winter Annual. Cultivated. Seed.

478561. R-246. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano. Non-dormant type. Local name San Miguel. Winter Annual. Cultivated. Seed.
478562. R-247. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano. Dormant type. Local name Regue. Annual. Cultivated. Seed.
478563. R-248. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. 3200m. Donated by R. Zambrano. Non-dormant type. Local name Curibaya. Winter Annual. Cultivated. Seed.
478564. R-249. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Near Ayacucho. Donated by R. Zambrano. Non-dormant type. Local name Talavera. Winter Annual. Cultivated. Seed.
478565. R-251. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Lacumba. Donated by R. Zambrano. Non-dormant type. Salt tolerant. Local name Agua Salada. Winter Annual. Cultivated. Seed.
478566. R-252. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. High Sierra. Donated by R. Zambrano. Non-dormant type. Plants very variable. Local name Alta Sierra. Winter Annual. Cultivated. Seed.
478567. R-253. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Lampolla. 1900m. Donated by R. Zambrano. Non-dormant type. Local name Cuestacaqui. Winter Annual. Cultivated. Seed.
478568. R-254. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano. Local name Para. Cultivated. Seed.
478569. R-255. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Near Ayacucho. Donated by R. Zambrano. Non-dormant type. Local name Puquio. Winter Annual. Cultivated. Seed.
478570. R-258. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Cuyruchaca, near Coracora. 3000m. Donated by R. Zambrano. Local name Cuyruchaca. Cultivated. Seed.
478571. R-259. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Donated by R. Zambrano.

478532 TO 478573-continued

Local name Tibillo. Cultivated. Seed.

478572. R-260. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Northern coast, La Libertad Department. Donated by R. Zambrano. Dormant type. Requires warm night temperatures. Local name Jequetepeque. Annual. Cultivated. Seed.

478573. R-262. Peru. La Molina, Lima. Univeridad Nacional Agraria. Collected May 16, 1981. Northern coastal area. Donated by R. Zambrano. Dormant type. Plants pubescent. High forage yield. Local name Santa Lucia. Annual. Cultivated. Seed.

478574. *Muhlenbergia fastigiata* (Presl) Henr. (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-173. Peru. Puno. Univeridade Nacional Technica del Altiplano. Collected May 06, 1981. 3835m. Field trial plot. Cultivated. Seed.

478575. *Nassella pubiflora* (Trin. & Rupr.) E. Desv. (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-175. Peru. Puno. Univeridade Nacional Technica del Altiplano. Collected May 06, 1981. 3835m. Field trial plot. Cultivated. Seed.

478576 TO 478577. *Oryza sativa* L. (Poaceae) Rice.

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478576. R-197. Peru. Collected May 08, 1981. Sandy soil, Tambo River Valley, 5km NW of Tambo, El Arenal. 150m. Local name Chamcay. Cultivated. Seed.

478576 TO 478577-continued

478577. R-198. Peru. Collected May 08, 1981. Sandy soil, Tambo River Valley, 5km NW of Tambo, El Arenal. 150m. Local name Milagroso. Cultivated. Seed.

478578. *Pennisetum* sp. (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-206. Peru. Collected May 10, 1981. In and along stream, 125km NE of Moquegua. 4300m. Wild. Seed.

478579. *Piptochaetium* sp. (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-203. Peru. Collected May 10, 1981. Arid site, 45km NW of Moquegua. 3560m. Wild. Seed.

478580. *Poa candamoana* Pilger (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-177. Peru. Puno. Univeridade Nacional Technica del Altiplamo. Collected May 06, 1981. 3835m. Field trial plot. Cultivated. Seed.

478581. *Poa gilgiana* Pilger (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-178. Peru. Puno. Univeridade Nacional Technica del Altiplamc. Collected May 06, 1981. 3835m. Field trial

478581-continued

plot. Cultivated. Seed.

478582. *Poa horridula* Filger (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-172. Peru. Puno. Univeridade Nacional Technica del Altiplano. Collected May 06, 1981. 3835m. Field trial plot. Cultivated. Seed.

478583. *Setaria* sp. (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-202. Peru. Collected May 09, 1981. Farm, Sama, 35km N of Tacna. 620m. Best grown with alfalfa. Used for pasture. Cultivated. Seed.

478584. *Sorghum bicolor* (L.) Moench (Poaceae) Sorghum.

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-263. Azucarado. Peru. La Molina, Lima. Univeridad Nacional Agraria. Donated by R. Zambrano. Selection from 'Sugar drip'. High forage production. Sugar content 18%. Cultivar. Seed.

478585 TO 478586. *Spartium junceum* L. (Fabaceae) Spanish broom.

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

478585. R-190. Peru. Collected May 07, 1981. Arequipa. 2400m. Ornamental shrub. Flowers large, attractive, yellow,

478585 TO 478586--continued

pleasant scent. Local name Retama. Cultivated. Seed.

478586. R-213. Peru. Collected May 14, 1981. Malpaso, North of Huaraz. Ornamental shrub. Leaves reduced. Flowers large, attractive, yellow, pleasant scent. Local name Retama. Cultivated. Seed.

478587. *Sporobolus* sp. (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-200. Peru. Collected May 09, 1981. Residence, Tacna. 660m. Cultivated. Seed.

478588. *Stipa brachyphylla* Hitchc. (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-170. Peru. Collected May 06, 1981. Puno. Field trial plot. Cultivated. Seed.

478589. *Trifolium amabile* H.B.K. (Fabaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-224. Peru. Collected May 15, 1981. South, 10km of Chiquian. 3500m. Seed.

478590. Undetermined (Poaceae).

From Peru. Collected by M.D. Rumbaugh & W.F. Lehman; Crops Research Laboratory, USDA, and Imperial Valley Field Station, University of California; Logan, Utah and El Centro, California.  
Received September 1981.

R-205. Peru. Collected May 10, 1981. Northeast, 120km of



478590-continued

Moquegua. 4380m. Unpalatable to llama. Eaten by alpaca.  
Wild. Seed.

478591. *Bauhinia esculenta* Burchell (Fabaceae) Marana bean.

From Botswana. Collected by Murry, R.; Foundation for  
Interdisciplinary Research; Bryan, Texas, USA.  
Received June 1983.

800. Botswana. Collected 1982. Corn field on farm near  
Ghanzi. Plants creeping vines from large underground  
storage root, several years old. Local name Morana.  
Perennial Herb. Wild. Seed.

478592. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Canada. Donated by Peterson, J. F.; Department of Plant  
Science, Macdonald College of McGill University; Ste.  
Anne de Bellevue, Quebec.  
Received June 1983.

'Early Prolific'. Canada. Laval, Quebec. W. H. Perron Co.  
Ltd. Plants early maturing. May have originated or been  
derived from 'Early Spanish' from Stokes Seeds Inc.,  
Buffalo, New York. Cultivar. Seed.

478593 TO 478596. *Agrostis* sp. (Poaceae).

From United Kingdom. Donated by Welsh Plant Breeding Station,  
University College of Wales; Aberystwyth, Wales. Code  
numbers refer to 1981 Seed Exchange List of the Welsh  
Plant Breeding Station.  
Received June 1983.

478593. 118.01. United Kingdom. Br 1247. Collected 1974. Grazed  
grassland, Nant Ffrancon, Gwynedd Co., Wales. Collected  
by M. O. Humphreys. Wild. Seed.

478594. 119.01. United Kingdom. Br 1248. Collected 1974.  
Mountain grassland, Cwn Llefrith, Gwynedd Co., Wales.  
Collected by M. O. Humphreys. Wild. Seed.

478595. 120.01. United Kingdom. Br 1249. Collected 1974.  
Roadside mountain grassland, Penmaenmawr, Gwynedd Co.,  
Wales. Collected by M. O. Humphreys. Wild. Seed.

478596. 121.01. United Kingdom. Br 1250. Collected 1974. Grazed  
grassland, Seatoller, Cumbria Co., England. Collected by  
M. O. Humphreys. Wild. Seed.

478597 TO 478602. *Deschampsia cespitosa* (L.) Beauv. (Poaceae) Tufted hairgrass.

From United Kingdom. Donated by Welsh Plant Breeding Station, University College of Wales; Aberystwyth, Wales. Code numbers refer to 1981 Seed Exchange List of the Welsh Plant Breeding Station.

Received June 1983.

478597. 126.01. United Kingdom. Bs 3685. Collected 1979. Roadside, Nant-y-Moch, Dyfed Co., Wales. 410m. Collected by M. Borrill and M. Evans. Wild. Seed.
478598. 128.01. United Kingdom. Bs 3690. Collected 1979. Mountain grassland, Nant-y-Moch, Dyfed Co., Wales. 274m. Collected by M. Borrill and M. Evans. Wild. Seed.
478599. 130.01. United Kingdom. Bs 3695. Collected 1979. Roadside bank, Syfydrin, Dyfed Co., Wales. 360m. Collected by M. Borrill and M. Evans. Wild. Seed.
478600. 131.01. United Kingdom. Bs 3696. Collected 1979. Woody roadside bank, Blaenmelindwr, Dyfed Co., Wales. 351m. Collected by M. Borrill and M. Evans. Wild. Seed.
478601. 132.01. United Kingdom. Bs 3698. Collected 1979. Woody mountain grassland, Carig-y-Pistyll, Dyfed Co., Wales. 381m. Collected by M. Borrill and M. Evans. Wild. Seed.
478602. 133.01. United Kingdom. Bs 3702. Collected 1979. Roadside bank, Pendam, Dyfed Co., Wales. 330m. Collected by M. Borrill and M. Evans. Wild. Seed.

478603. *Phleum pratense* L. (Poaceae) Timothy.

From United Kingdom. Donated by Welsh Plant Breeding Station, University College of Wales; Aberystwyth, Wales. Code numbers refer to 1981 Seed Exchange List of the Welsh Plant Breeding Station.

Received June 1983.

- 79.01. United Kingdom. Bd 3247. Collected 1979. Mining wasteland, Capel Bangor, Dyfed Co., Wales. 25m. Collected by K. H. Chorlton and I. D. Thomas. Wild. Seed.

478604. *Cynosurus echinatus* L. (Poaceae).

From Denmark. Donated by Hortus Botanicus Hauniensis, Universitetets Botaniske Have; DK-1353 Kobenhavn K. Code numbers refer to 1977 Index Seminum.

Received January 1979.

478604-continued

1690. Denmark. Cultivated. Seed.

478605. *Lycopersicon pimpinellifolium* (L.) Mill. (Solanaceae) Currant tomato.

From United States. Collected by Goldman, C. R.; Division of Environmental Studies, University of California; Davis, California.

Received 1982.

Argentina. Dept. of Vegetable Crops, Univ. of Calif., Davis. 81L898. Roadside, edge of Ibera Marsh. Probable drought tolerance. Fruits small. Wild. Seed.

478606. *Pithecellobium arboreum* (L.) Urban (Fabaceae).

From United States. Donated by Soderholm, P. K.; Subtropical Horticultural Research Station, USDA; Miami, Florida.

Received June 1983.

M 29694. Haiti. Roche-Blanche. 120m. Collected by Pierre Roumain. Annual rainfall 600mm. Seed.

478607. *Corchorus olitorius* L. (Tiliaceae) Tussa jute.

From United States. Donated by Agri-Business Consultants, Division of Plantation Equipment Company; Clearwater, Florida.

Received July 1983.

Guinea. Collected November 1982. Talikan. Wild. Seed.

478608. *Corchorus* sp. (Tiliaceae).

From United States. Donated by Agri-Business Consultants, Division of Plantation Equipment Company; Clearwater, Florida.

Received July 1983.

Guinea. Collected November 1982. Kouroussa. Wild. Seed.

478609 TO 478610. *Hibiscus cannabinus* L. (Malvaceae) Kenaf.

From United States. Donated by Agri-Business Consultants, Division of Plantation Equipment Company; Clearwater, Florida.

Received July 1983.

478609. Guinea. Collected November 1982. Kouroussa. Local type. Cultivated. Seed.

478609 TO 478610-continued

478610. Guinea. Collected November 1982. Madice Keita, Kouroussa.  
Local type. Cultivated. Seed.

478611 TO 478613. *Lens culinaris* Medik. (Fabaceae) Lentil.

From Iran. Donated by Regional Pulse Improvement Project,  
Ministry of Agriculture; Tehran. Received through A.S.  
Whitney, Dept. of Agronomy & Soil Science, Univ. of  
Hawaii, Kula.  
Received 1978.

478611. Iran. Widely recommended type. Cultivar. Seed.

478612. S-29. Iran. Cultivated. Seed.

478613. S-143. Iran. Cultivated. Seed.

478614 TO 478615. *Phaseolus vulgaris* L. (Fabaceae) Garden bean.

From Iran. Donated by Regional Pulse Improvement Project,  
Ministry of Agriculture; Tehran. Received through A.S.  
Whitney, Dept. of Agronomy & Soil Science, Univ. of  
Hawaii, Kula.  
Received 1978.

478614. 65-071-00042. 'Marmar'. Iran. Shiraz. Seeds white.  
Cultivar. Seed.

478615. 'Sadaf'. Iran. Seeds white. Cultivar. Seed.

478616. *Trigonella foenum-graecum* L. (Fabaceae) Fenugreek.

From Iran. Donated by Regional Pulse Improvement Project,  
Ministry of Agriculture; Tehran. Received through A.S.  
Whitney, Dept. of Agronomy & Soil Science, Univ. of  
Hawaii, Kula.  
Received 1978.

Giza 30. Egypt. Cultivated. Seed.

478617. *Vicia faba* L. (Fabaceae) Broadbean.

From Iran. Donated by Regional Pulse Improvement Project,  
Ministry of Agriculture; Tehran. Received through A.S.  
Whitney, Dept. of Agronomy & Soil Science, Univ. of  
Hawaii, Kula.  
Received 1978.

478617-continued

C 402. Iran. Cultivated. Seed.

478618 TO 478620. *Vigna radiata* (L.) Wilczek (Fabaceae) Mungbean.

From Iran. Donated by Regional Pulse Improvement Project,  
Ministry of Agriculture; Tehran. Received through A.S.  
Whitney, Dept. of Agronomy & Soil Science, Univ. of  
Hawaii, Kula.  
Received 1978.

478618. 48-069-10075. 'Gohar'. India. Cultivar. Seed.

478619. 48-071-10827. 'Mehr'. Iran. Cultivar. Seed.

478620. 48-157-10307. 'Partow'. United States. Cultivar. Seed.

478621 TO 478622. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
(Fabaceae) Southern pea.

From Iran. Donated by Regional Pulse Improvement Project,  
Ministry of Agriculture; Tehran. Received through A.S.  
Whitney, Dept. of Agronomy & Soil Science, Univ. of  
Hawaii, Kula.  
Received 1978.

478621. 62-071-10003. 'Mashad'. Iran. Other identification No.  
4002. Cultivar. Seed.

478622. 62-153-00052. Turkey. Other identification No. 4004.  
Cultivated. Seed.

478623 TO 478637. *Lathyrus odoratus* L. (Fabaceae) Sweet pea.

From New Zealand. Donated by Hammett, K.R.W.; Division of  
Horticulture and Processing, Department of Scientific and  
Industrial Research; Auckland, New Zealand.  
Received July 1983.

478623. Balerina. Australia. Seed.

478624. Beverly Kay. Australia. Seed.

478625. Christine Martin. Australia. Seed.

478626. Claire Harkness. Australia. Seed.

478627. Fragrance. Australia. Seed.

478628. Glenice Percy. Australia. Seed.

478629. Margaret. Australia. Seed.

478630. Marriane. Australia. Seed.

478623 TO 478637-continued

478631. Piralilla Cream. Australia. Seed.

478632. Piralilla Fay. Australia. Seed.

478633. Piralilla Joy. Australia. Seed.

478634. Salmon Supreme. Australia. Seed.

478635. Susan Modra. Australia. Seed.

478636. Una Scobie. Australia. Seed.

478637. White Gem. Australia. Seed.

478638. *Teramnus labialis* (L. f.) Spreng. (Fabaceae) Blue wiss.

From Philippines. Collected by Gruezo, W. S.; Museum of Natural History, University of the Philippines at Los Banos; College, Laguna 3720, Philippines.  
Received July 1983.

Gruezo WM83-172. Philippines. Collected April 02, 1983. Bo. Tangayin, Ivana, Batan Island, Batanes Province. Plants growing on hillside, 80m from seaport, 70m from rough road to Uyugan along with *Imperata cylindrica*. Wild. Seed.

478639 TO 478663. *Parthenium argentatum* A. Gray (Asteraceae).

From United States. Donated by Hammond, B. L.; U. S. Agricultural Research Station, United States Department of Agriculture; Salinas, California. Received through National Seed Storage Laboratory, Ft. Collins, Colorado.  
Received May 1983.

478639. 593. United States. Developed by International Rubber Company. Plants uniform. Used as check variety. Cultivar. Seed.

478640. 11591. United States. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.

478641. 11600. United States. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.

478642. 11604. United States. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.

478639 TO 478663-continued

478643. 11605. United States. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.
478644. 11609. United States. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.
478645. 11619. United States. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.
478646. 11633. Mexico. Other identification A48124. Rubber yield 8.22 percent. Plant vigor low. Well adapted to hot, dry climates. Breeding Material. Seed.
478647. 11634. United States. High rubber-yielding (9.12 percent) selection. Well adapted to hot, dry climates. Breeding Material. Seed.
478648. 11635. United States. Highest rubber-yielding selection in trials. Rubber content 9.42 percent. Highly resistant to charcoal rot (*Sclerotium bataticola*). Breeding Material. Seed.
478649. 11646. Mexico. Other identification A48121. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.
478650. 11693. United States. Other identification N563. High rubber-yielding (9.27 percent) selection. Well adapted to hot, dry climates. Highly resistant to charcoal rot (*Sclerotium bataticola*). Breeding Material. Seed.
478651. 11701. United States. High rubber-yielding (9.12 percent) selection. Well adapted to hot, dry climates. Breeding Material. Seed.
478652. 12229. United States. Other identification S2636-168. High rubber-yielding (6.80 percent) selection. Well adapted to hot, dry climates. Breeding Material. Seed.
478653. 12231. Mexico. Other identification A48115. High rubber-yielding (6.68 percent) selection. Well adapted to hot, dry climates. Breeding Material. Seed.
478654. N396. Mexico. High rubber-yielding (8.98 percent) selection. Vigor less at Salinas than at Shafter. Highly resistant to charcoal rot (*Sclerotium bataticola*). Highly susceptible to wilt (*Verticillium*). Breeding Material. Seed.

478639 TO 478663-continued

478655. N565. United States. High rubber-yielding (9.42 percent) selection. Well adapted to hot, dry climates. Breeding Material. Seed.
478656. N565-II. United States. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.
478657. N566. United States. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.
478658. N575. Mexico. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.
478659. N576. Mexico. Other identification A48116. Plants outyielded check varieties PI 478639 and PI 478660 at Salinas. Breeding Material. Seed.
478660. 4265-X. Mexico. Single superior selection from A4265. Plants highly variable. Used as check variety. Resistant to charcoal rot (*Sclerotium bataticola*). Breeding Material. Seed.
478661. 4265-XF. Mexico. Selection from PI 478660. Plants vigorous. Yield of rubber and dry matter high. Breeding Material. Seed.
478662. A48118. Mexico. Rubber content 5.88 percent. Well adapted to hot, dry climates. Breeding Material. Seed.
478663. United States. Chromosome number 36. Breeding Material. Seed.

478664 TO 478665. *Parthenium argentatum* A. Gray (Asteraceae).

From United States. Donated by Estilai, A.; Guayule Development Project, Univ. of California, California Dept. of Food & Agriculture, and USDA; Shafter, California. Received through National Seed Storage Laboratory, Fort Collins, Colorado.  
Received May 1983.

478664. Cal-3. United States. Crop Science. GP3. Plants diploid. Source for early rubber production. Breeding Material. Seed.
478665. Cal-4. United States. Crop Science. GP4. Plants highly variable in morphological characteristics and chromosome number. Resistant to wilt (*Verticillium albo-atrum*). Breeding Material. Seed.



478666 TO 478667. *Parthenium* hybrid (Asteraceae).

From United States. Donated by Estilai, A.; Guayule Development Project, Univ. of California, California Dept. of Food & Agriculture, and USDA; Shafter, California. Received through National Seed Storage Laboratory, Fort Collins, Colorado.

Received May 1983.

478666. Cal-1. United States. Crop Science. GP1. *P. argentatum*/*P. tomentosum*. Plants vigorous, large, productive, and extremely variable in height, spread, branching, leaf characteristics, flowering date and degree, head size, and seed size and production. Resistant to wilt (*Verticillium albo-atrum*). Breeding Material. Seed.

478667. Cal-2. United States. Crop Science. GP2. *P. argentatum*/*P. fruticosum*. Plants vigorous, smaller than PI 478666, extremely variable in morphological characteristics. Resistant to wilt (*Verticillium albo-atrum*). Breeding Material. Seed.

478668 TO 478679. *Allium cepa* L. (Amaryllidaceae) Onion.

From New Zealand. Donated by Yates Research; Courtenay, RD 1, Christchurch.

Received July 1983.

478668. H 771M. New Zealand. Sel. from 'Porters Early Globe'. Breeding Material. Seed.

478669. H 771N. New Zealand. Sel. from 'Porters Early Globe'. Breeding Material. Seed.

478670. H 771Q. New Zealand. Sel. from 'Porters Early Globe'. Breeding Material. Seed.

478671. H 771R. New Zealand. Sel. from 'Porters Early Globe'. Breeding Material. Seed.

478672. H 771S. New Zealand. Sel. from 'Porters Early Globe'. Breeding Material. Seed.

478673. H 771T. New Zealand. Sel. from 'Porters Early Globe'. Breeding Material. Seed.

478674. H 771U. New Zealand. Sel. from 'Porters Early Globe'. Breeding Material. Seed.

478675. H 157A. New Zealand. Sel. from 'May & Ryan'. Early type. Pukekohe Longkeeper. Breeding Material. Seed.

478676. H 157B. New Zealand. Sel. from 'May & Ryan'. Early type.

478668 TO 478679-continued

Pukekohe Longkeeper. Breeding Material. Seed.

478677. H 157Y. New Zealand. Sel. from 'May & Ryan'. Early type. Pukekohe Longkeeper. Breeding Material. Seed.

478678. H 157Z. New Zealand. Sel. from 'May & Ryan'. Early type. Pukekohe Longkeeper. Breeding Material. Seed.

478679. H 757J. New Zealand. Sel. from 'May & Ryan'. Regular type. Pukekohe Longkeeper. Breeding Material. Seed.

478680 TO 478748. *Triticum dicoccoides* (Koern. ex Asch. & Graebn.) Aaronsohn (Poaceae) Wild emmer.

From Israel. Donated by Gerechter-Amitai, Z.; Institute of Field & Garden Crops, The Volcani Center; Bet Dagan 50-250.

Received through Binational Agric. Research Development Projects (BARD) I-63-79 and I-365-81.

Received August 1983.

478680. G-528. Israel. Resistant to powdery mildew. Wild. Seed.

478681. G-542. Israel. Resistant to leaf rust. Wild. Seed.

478682. G-609-1B. Israel. Resistant to leaf rust. Wild. Seed.

478683. G-675. Israel. Resistant to leaf rust. Wild. Seed.

478684. G-749. Israel. Resistant to leaf rust. Wild. Seed.

478685. G-763. Israel. Resistant to leaf rust. Wild. Seed.

478686. G-765. Israel. Resistant to leaf rust. Wild. Seed.

478687. G-767. Israel. Resistant to leaf rust. Wild. Seed.

478688. G-768. Israel. Resistant to leaf rust. Wild. Seed.

478689. G-774. Israel. Resistant to leaf rust. Wild. Seed.

478690. G-777. Israel. Resistant to leaf rust. Wild. Seed.

478691. G-780. Israel. Resistant to leaf rust. Wild. Seed.

478692. G-781. Israel. Resistant to leaf rust. Wild. Seed.

478693. G-782. Israel. Resistant to leaf rust. Wild. Seed.

478694. G-785. Israel. Resistant to leaf rust. Wild. Seed.

478695. G-25MB. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.

478680 TO 478748-continued

- 478696. G-76MB. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478697. G-84-1M. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478698. G-112-M. Israel. Resistant to leaf rust. Wild. Seed.
- 478699. G-122MB. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478700. G-141MB. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478701. G-154MB. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478702. G-168-1-2. Israel. Resistant to leaf rust. Wild. Seed.
- 478703. G-218M. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478704. G-219M. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478705. G-246M. Israel. Resistant to leaf rust. Wild. Seed.
- 478706. G-247M. Israel. Resistant to leaf rust. Wild. Seed.
- 478707. G-254M. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478708. G-279M. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478709. G-281M. Israel. Resistant to leaf rust. Wild. Seed.
- 478710. G-340M. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478711. G-340-3-3BM. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478712. G-363-4-4BM. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478713. G-506M. Israel. Resistant to leaf rust. Wild. Seed.
- 478714. G-510M. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
- 478715. G-744M. Israel. Resistant to leaf rust and powdery

478680 TO 478748-continued

- mildew. Wild. Seed.
478716. G-759M. Israel. Resistant to leaf rust and powdery mildew. Wild. Seed.
478717. G-770M. Israel. Resistant to leaf rust. Wild. Seed.
478718. G-790. Israel. Resistant to powdery mildew. Wild. Seed.
478719. G-791. Israel. Wild. Seed.
478720. G-792. Israel. Wild. Seed.
478721. G-793. Israel. Wild. Seed.
478722. G-794. Israel. Wild. Seed.
478723. G-795. Israel. Resistant to leaf rust. Wild. Seed.
478724. G-797. Israel. Resistant to powdery mildew. Wild. Seed.
478725. G-798. Israel. Wild. Seed.
478726. G-800. Israel. Wild. Seed.
478727. G-801. Israel. Wild. Seed.
478728. G-802. Israel. Resistant to powdery mildew. Wild. Seed.
478729. G-803. Israel. Resistant to powdery mildew. Wild. Seed.
478730. G-529M. Israel. Resistant to powdery mildew. Wild. Seed.
478731. G-559. Israel. Resistant to powdery mildew. Wild. Seed.
478732. G-567M. Israel. Resistant to powdery mildew. Wild. Seed.
478733. G-607M. Israel. Wild. Seed.
478734. G-612M. Israel. Resistant to powdery mildew. Wild. Seed.
478735. G-620. Israel. Resistant to powdery mildew. Wild. Seed.
478736. G-622. Israel. Resistant to powdery mildew and leaf rust. Wild. Seed.
478737. G-626M. Israel. Resistant to powdery mildew. Wild. Seed.
478738. G-630M. Israel. Resistant to powdery mildew and leaf rust. Wild. Seed.
478739. G-640. Israel. Wild. Seed.

478680 TO 478748-continued

- 478740. G-644. Israel. Resistant to powdery mildew. Wild. Seed.
- 478741. G-672. Israel. Resistant to powdery mildew. Wild. Seed.
- 478742. G-709. Israel. Resistant to powdery mildew and leaf rust. Wild. Seed.
- 478743. G-7-2-4M. Israel. Resistant to powdery mildew and leaf rust. Wild. Seed.
- 478744. G-23-1M. Israel. Resistant to powdery mildew and leaf rust. Wild. Seed.
- 478745. G-84-1M. Israel. Resistant to powdery mildew. Wild. Seed.
- 478746. G-312-10-5B. Israel. Resistant to powdery mildew and leaf rust. Wild. Seed.
- 478747. G-503-3M. Israel. Wild. Seed.
- 478748. G-510M. Israel. Resistant to powdery mildew. Wild. Seed.

478749 TO 478755. *Gossypium australe* F. Muell. (Malvaceae).

From Australia. Collected by Stewart, J.M.; USDA, Department of Plant & Soil Science, University of Tennessee; Knoxville, Tennessee, USA.  
Received July 1983.

- 478749. JMS 123. Australia. Collected May 04, 1983. Grave Creek, Mt. House Sta., 45km east of Inglis Gap, Western Australia. Plant 1 m tall. Flowers cleistogamous, some chasmogamous buds present. Most populations in the Kimberley area appear chasmogamous. Shrub - Upright. Wild. Seed.
- 478750. JMS 124. Australia. Collected May 05, 1983. Abandoned airstrip, Glenroy meatworks, Kimberley area, Western Australia. Plants 1 m tall. Early colonizer of disturbed lands. Cleistogamy not evident. Wild. Seed.
- 478751. JMS 163. Australia. Collected May 18, 1983. Roadside, 44km east of Kununurra on road to Katherine, Northern Territory. Plants 2m tall. Flowers mauve, with dark red petal spots and large nectaries. Shrub - Upright. Wild. Seed.
- 478752. JMS 164. Australia. Collected May 19, 1983. Roadside, 50km E of Timber Creek, on road to Katherine, Northern Territory. Plants 2m tall. Flowers mauve, with dark red petal spots and large nectaries. Shrub - Upright. Wild.

478749 TO 478755-continued  
Seed.

478753. JMS 195. Australia. Collected May 03, 1983. Kimberleys, 50km east of Derby along Gibb River Road, Western Australia. Plant 1.5m tall. Foliar and floral nectaries very large. Shrub - Upright. Wild. Seed.

478754. JMS 196. Australia. Collected 1981. Carawine Gorge, east of Marble Bar, Western Australia. Donated by M. Fischer. Greenhouse increase seed from original collection. Cultivated. Seed.

478755. JMS 197. Australia. Ord River Station, near Kununurra, Western Australia. Donated by M. Fischer. Seed from original collection. Seed.

478756. *Gossypium costulatum* Todaro (Malvaceae).

From Australia. Collected by Stewart, J.M.; USDA, Department of Plant & Soil Science, University of Tennessee; Knoxville, Tennessee, USA.  
Received July 1983.

JMS 116. Australia. Collected May 01, 1983. Grassy open woodland, Koolan Island, Yampi Sound, Western Australia. Plants common. Branches sprawling from crown, up to 2m long, usually 1 m. Flowers white with red center becoming pink. Shrub - Spreading. Wild. Seed.

478757. *Gossypium cunninghamii* Todaro (Malvaceae).

From Australia. Collected by Stewart, J.M.; USDA, Department of Plant & Soil Science, University of Tennessee; Knoxville, Tennessee, USA.  
Received July 1983.

JMS 178. Australia. Collected May 23, 1983. South, 1 km of Black Point Ranger Station, Cobourg Peninsula. Sandy soil overlaying laterite. Plants near cliff edge. Perennial subshrub with ascending stems from a perennial rootstock. Wild. Seed.

478758 TO 478759. *Gossypium hirsutum* L. (Malvaceae) Upland cotton.

From Australia. Collected by Stewart, J.M.; USDA, Department of Plant & Soil Science, University of Tennessee; Knoxville, Tennessee, USA.  
Received July 1983.

478758. JMS 174. Australia. Collected May 22, 1983. Daly River,

**478758 TO 478759-continued**

near Bamboo Creek, vicinity of Wooliana, Northern Territory. Plant 2.5m tall, widely branching. Flowers cream colored. Feral. Shrub - Upright. Wild. Seed.

- 478759.** JMS 194. Australia. Collected May 26, 1983. Roadside, E floodplain of Adelaide River, on road to Kakadu Nat. Park, N.T. Plant to 1.5m. Fruiting heavily. Feral. Shrub - Upright. Wild. Seed.

**478760 TO 478761. *Gossypium pilosum* Fryxell (Malvaceae).**

From Australia. Collected by Stewart, J.M.; USDA, Department of Plant & Soil Science, University of Tennessee; Knoxville, Tennessee, USA.  
Received July 1983.

- 478760.** JMS 138. Australia. Collected May 10, 1983. Rocky woodland, NE Mitchell Plateau, Lone Dingo, Kimberleys, W Australia. Suberect or ascending perennial subshrub. Flowers white with red center. Common, but few mature capsules. One of series collected to determine variation. Wild. Seed.

- 478761.** JMS 138A. Australia. Collected May 10, 1983. N part of Mitchell Plateau, 4km ENE from remote weather station, W Australia. Collected by P. Fryxell. Suberect or ascending perennial subshrub. Flowers white with red center. Common, but few mature capsules. One of series collected to determine variation. Wild. Seed.

**478762 TO 478763. *Gossypium populifolium* (Benth.) F. Muell. (Malvaceae).**

From Australia. Collected by Stewart, J.M.; USDA, Department of Plant & Soil Science, University of Tennessee; Knoxville, Tennessee, USA.  
Received July 1983.

- 478762.** JMS 130. Australia. Collected May 06, 1983. W 15.5km of Hann River crossing on Gibb River Rd, Kimberleys, W Australia. Eucalypt woodland and roadside. Prostrate perennial to 2m long. Corolla white to pink with dark red center. Pollen cream colored. Shrub - Spreading. Wild. Seed.

- 478763.** JMS 131. Australia. Collected May 07, 1983. Kalumburu Rd. crossing of North Creek, 30km N of Gibb River Homestead. Open woodland of *Eucalyptus tectifica* and tall grass. Prostrate perennial to 2m long. Flowers all pink. Shrub - Spreading. Wild. Seed.

478764 TO 478770. *Gossypium* sp. (Malvaceae) Cotton.

From Australia. Collected by Stewart, J.M.; USDA, Department of Plant & Soil Science, University of Tennessee; Knoxville, Tennessee, USA.

Received July 1983.

478764. JMS 136. Australia. Collected May 10, 1983. Laterite, 2km N of Mining Camp on Mitchell Plateau, Kimberleys, W Australia. Growing with *Livistona* palm and eucalypt. Plants decumbent with ascending stems. Flowers white with red petal spot. One of a series collected to determine variation. Wild. Seed.
478765. JMS 140. Australia. Collected May 11, 1983. Mitchell Plateau, 10km S of Mining Camp, Kimberleys, Western Australia. Plants ascending. Flowers white to pale pink with red center. One of series collected to determine variation. Perennial Herb. Wild. Seed.
478766. JMS 141. Australia. Collected May 11, 1983. Mitchell Plateau, 20km S of Mining Camp, Kimberleys, Western Australia. Plants procumbent, similar to PI 478765 but more prostrate. One of series collected to determine variation. Perennial Herb. Wild. Seed.
478767. JMS 142. Australia. Collected May 11, 1983. Road to Mitchell Plateau, 50km ESE of Mining Camp, Kimberleys, W Australia. Plants prostrate, smaller calyx than PI 478765, otherwise the same. One of series collected to determine variation. Perennial Herb. Wild. Seed.
478768. JMS 146. Australia. Collected May 13, 1983. West, 7km of Carson River Homestead, north Kimberleys, Western Australia. Plants 1 m tall. Corolla pale mauve to white with red center, prominent glands on petals. Anthers red with orange pollen. Capsules contain 6-7 seeds. Possibly a new species. Shrub - Upright. Wild. Seed.
478769. JMS 154. Australia. Collected May 17, 1983. Past banana plantation, 3-4km east of Kalumburu, Kimberleys, W Australia. Plants same as PI 478768 but wetter habitat and plants somewhat taller. Shrub - Upright. Wild. Seed.
478770. JMS 155. Australia. Collected May 15, 1983. East, 1 km of Carson River Station, north Kimberleys, Western Australia. Plants same as PI 478768. Shrub - Upright. Wild. Seed.

478771. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by Agricultural Experiment Station, North Dakota State University, and U.S. Department of



**478771-continued**

**Agriculture; Fargo, North Dakota.  
Received July 1983.**

**ND7687. 'Agassiz'. United States. Yto-117/Trader. Hard red, awned type, similar to Roughrider. Height between Roughrider and Norstar. Winterhardiness equivalent to Winoka. Productivity better than Roughrider. Overall milling and baking satisfactory, somewhat higher in gluten content. Susceptible to leaf rust, resistant to stem rust. Winter Annual. Cultivar. Seed.**

**478772. Melilotus alba Medik. (Fabaceae) White sweetclover.**

**From United States. Donated by North Central Regional Plant Introduction Station, Iowa State University; Ames, Iowa.  
Received May 1983.**

**A-1826. 'Hubam'. United States. Waco, Texas. Conlee Seed Company. Cultivar. Seed.**

**478773. Melilotus alba var. annua H. S. Coe (Fabaceae).**

**From United States. Donated by North Central Regional Plant Introduction Station, Iowa State University; Ames, Iowa.  
Received May 1983.**

**A-2356. 'Floranna'. United States. Gainesville, Florida. Dept. of Agronomy, Florida Agricultural Expt. Sta. Donated by E. S. Horner. Annual sweetclover. Cultivar. Seed.**

**478774 TO 478776. Arachis hypogaea L. (Fabaceae) Peanut.**

**From China, Peoples Repub of. Donated by Peanut Research Institute; Laixi, Shandong Province. Received through Inst. of Crop Germplasm Resources, Chinese Academy of Ag. Sciences, Beijing.  
Received August 1983.**

**478774. Hua 37. China, Peoples Repub of. Shandong Province. Virginia type. Maturity medium. Cultivated. Seed.**

**478775. Hua 39. China, Peoples Repub of. Shandong Province. Virginia type. Maturity medium. Cultivated. Seed.**

**478776. Peng Lai Monkey. China, Peoples Repub of. Peng Lai County, Shandong Province. Virginia type. Maturity very late, 160 days. Cultivated. Seed.**

478777. *Medicago sativa* L. (Fabaceae) Alfalfa.

From United States. Donated by Lehman, W. F.; Imperial Valley Field Station, University of California; El Centro, California. Received through N. W. Scott, Newman Seed Company, El Centro, California.  
Received July 1981.

Ecuador. Market, Ambato. Local tall ecotype. Cultivated. Seed.

478778 TO 478779. *Medicago sativa* L. (Fabaceae) Alfalfa.

From United States. Donated by Lehman, W. F.; Imperial Valley Field Station, University of California; El Centro, California. Received through G. Worker, University of California, El Centro, California.  
Received July 1981.

478778. Yemen Arab Republic. Tiaz. 2000m. Cultivated. Seed.

478779. Yemen Arab Republic. Tiaz. 2000m. Drought tolerant. Cultivated. Seed.

478780 TO 478829. *Arachis hypogaea* L. (Fabaceae) Peanut.

From India. Donated by International Crops Research Institute for the Semi-Arid Tropics (ICRISAT); Andhra Pradesh 502324.  
Received August 1983.

478780. ICGS 1. India. Spreading bunch type. Breeding Material. Seed.

478781. ICGS 2. India. Spreading bunch type. Breeding Material. Seed.

478782. ICGS 3. India. Spreading bunch type. Breeding Material. Seed.

478783. ICGS 4. India. Virginia bunch type. Breeding Material. Seed.

478784. ICGS 5. India. Virginia bunch type. Breeding Material. Seed.

478785. ICGS 6. India. Virginia bunch type. Breeding Material. Seed.

478786. ICGS 7. India. Spreading bunch type. Breeding Material. Seed.

478787. ICGS 10. India. Spreading bunch type. Breeding Material.

478780 TO 478829-continued  
Seed.

- 478788. ICGS 11. India. Spreading bunch type. Breeding Material.  
Seed.
- 478789. ICGS 12. India. Spreading bunch type. Breeding Material.  
Seed.
- 478790. ICGS 13. India. Spreading bunch type. Breeding Material.  
Seed.
- 478791. ICGS 14. India. Spreading bunch type. Breeding Material.  
Seed.
- 478792. ICGS 15. India. Spreading bunch type. Breeding Material.  
Seed.
- 478793. ICGS 16. India. Spreading bunch type. Breeding Material.  
Seed.
- 478794. ICGS 17. India. Virginia bunch type. Breeding Material.  
Seed.
- 478795. ICGS 19. India. Virginia bunch type. Breeding Material.  
Seed.
- 478796. ICGS 20. India. Virginia bunch type. Breeding Material.  
Seed.
- 478797. ICGS 21. India. Spreading bunch type. Breeding Material.  
Seed.
- 478798. ICGS 22. India. Spreading bunch type. Breeding Material.  
Seed.
- 478799. ICGS 23. India. Spreading bunch type. Breeding Material.  
Seed.
- 478800. ICGS 24. India. Spreading bunch type. Breeding Material.  
Seed.
- 478801. ICGS 25. India. Spreading bunch type. Breeding Material.  
Seed.
- 478802. ICGS 26. India. Spreading bunch type. Breeding Material.  
Seed.
- 478803. ICGS 27. India. Spreading bunch type. Breeding Material.  
Seed.
- 478804. ICGS 28. India. Spreading bunch type. Breeding Material.  
Seed.

478780 TO 478829-continued

- 478805. ICGS 29. India. Virginia bunch type. Breeding Material. Seed.
- 478806. ICGS 30. India. Spreading bunch type. Breeding Material. Seed.
- 478807. ICGS 31. India. Virginia bunch type. Breeding Material. Seed.
- 478808. ICGS 32. India. Spreading bunch type. Breeding Material. Seed.
- 478809. ICGS 33. India. Spreading bunch type. Breeding Material. Seed.
- 478810. ICGS 34. India. Virginia bunch type. Breeding Material. Seed.
- 478811. ICGS 35. India. Spreading bunch type. Breeding Material. Seed.
- 478812. ICGS 36. India. Spreading bunch type. Breeding Material. Seed.
- 478813. ICGS 38. India. Spreading bunch type. Breeding Material. Seed.
- 478814. ICGS 40. India. Spreading bunch type. Breeding Material. Seed.
- 478815. ICGS 41. India. Spreading bunch type. Breeding Material. Seed.
- 478816. ICGS 42. India. Spreading bunch type. Breeding Material. Seed.
- 478817. ICGS 43. India. Spreading bunch type. Breeding Material. Seed.
- 478818. ICGS 44. India. Spreading bunch type. Breeding Material. Seed.
- 478819. ICGS 45. India. Spreading bunch type. Breeding Material. Seed.
- 478820. ICGS 46. India. Virginia bunch type. Breeding Material. Seed.
- 478821. ICGS 47. India. Virginia bunch type. Breeding Material. Seed.
- 478822. ICGS 48. India. Virginia bunch type. Breeding Material.

478780 TO 478829--continued  
Seed.

478823. ICGS 49. India. Virginia bunch type. Breeding Material.  
Seed.
478824. ICGS 50. India. Virginia bunch type. Breeding Material.  
Seed.
478825. ICGS 51. India. Spreading bunch type. Breeding Material.  
Seed.
478826. ICGS 52. India. Spreading bunch type. Breeding Material.  
Seed.
478827. ICGS 53. India. Spreading bunch type. Breeding Material.  
Seed.
478828. ICGS 54. India. Virginia bunch type. Breeding Material.  
Seed.
478829. ICGS 55. India. Virginia bunch type. Breeding Material.  
Seed.

478830. *Atriplex nuttallii* S. Wats. (Chenopodiaceae).

From United States. Donated by Bridger Plant Materials Center,  
Soil Conservation Service, USDA; Bridger, Montana.  
Received through National Plant Materials Center, SCS,  
Beltsville, Md.  
Received May 1983.

T 5294. United States. Collected October 25, 1967.  
Plevna, Montana. 1000m. Produces colonizing layers.  
Perennial Woody. Wild. Seed.

478831. *Elymus cinereus* Scribn. & Merr. (Poaceae) Basin wildrye.

From United States. Donated by Bridger Plant Materials Center,  
Soil Conservation Service, USDA; Bridger, Montana.  
Received through National Plant Materials Center, SCS,  
Beltsville, Md.  
Received May 1983.

T 5356. United States. Collected 1959. Roundup, Montana.  
1200m. Plants very leafy. Leaves broad, semi-lax, dark  
green. Early forage production excellent. Seed production  
good. Resistant to powdery mildew and stem rusts.  
Perennial Herb. Wild. Seed.

478832. *Elymus giganteus* Vahl (Poaceae) Mammoth wildrye.

From United States. Donated by Bridger Plant Materials Center, Soil Conservation Service, USDA; Bridger, Montana. Received through National Plant Materials Center, SCS, Beltsville, MD. Received May 1983.

T 16187. United States. Well adapted to sandy soil stabilization where rainfall exceeds 17.8cm per year. Moderately salt tolerant. Perennial Herb. Wild. Seed.

478833. *Oryzopsis hymenoides* (Roem. & Schult.) Ricker (Poaceae).

From United States. Donated by Bridger Plant Materials Center, Soil Conservation Service, USDA; Bridger, Montana. Received through National Plant Materials Center, SCS, Beltsville, Md. Received May 1983.

T 5424. United States. Collected June 29, 1960. Billings, Montana. 1000m. Plants tall, leafy. Leaves longer than normal. Seed production good. Perennial Herb. Wild. Seed.

478834. *Petalostemon candidum* (Willd.) Michx. (Fabaceae).

From United States. Donated by Bridger Plant Materials Center, Soil Conservation Service, USDA; Bridger, Montana. Received through National Plant Materials Center, SCS, Beltsville, Md. Received May 1983.

T 15903. United States. Dickerson, North Dakota. Upright stems from woody base to 0.6m tall. Branches numerous. Flowers white. Seed production good. With irrigation, stand uniform. Perennial Herb. Wild. Seed.

478835. *Sporobolus asper* var. *hookeri* (Trin.) Vasey (Poaceae) Meadow dropseed.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, Md. Received May 1983.

T 8316. United States. Collected November 1971. Junction, Texas. 636m. Collected by S. Coleman. Used for revegetation on reclamation projects. Perennial Herb. Wild. Seed.

478836. *Sporobolus texanus* Vasey (Poaceae) Texas dropseed.

From United States. Donated by Knox City Plant Materials Center, Soil Conservation Service, USDA; Knox City, Texas. Received through National Plant Materials Center, SCS, Beltsville, Md. Received May 1983.

T 4899. United States. Collected 1971. Okmulgee, Oklahoma. Used for revegetation on reclamation projects. Perennial Herb. Cultivated. Seed.

478837 TO 478838. *Atriplex canescens* (Pursh) Nutt. (Chenopodiaceae) Fourwing saltbush.

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, Md. Received May 1983.

478837. T 4468. United States. Collected December 1957. Los Lunas, New Mexico. 1490m. Growth rapid, dense. Leaves abundant. Seed abundant. Perennial Woody. Wild. Seed.

478838. T 4474. United States. Collected November 1966. Albuquerque, New Mexico. 1800m. Growth rapid, dense. Leaves abundant. Seed abundant. Perennial Woody. Wild. Seed.

478839. *Bouteloua curtipendula* (Michx.) Torr. (Poaceae) Side-oats grama.

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, Md. Received May 1983.

T 4495. United States. Collected September 1957. Socorro, New Mexico. 1500m. Seed production and uniformity good. Possibly drought tolerant. Perennial Herb. Wild. Seed.

478840. *Ceratoides lanata* (Pursh) Howell (Chenopodiaceae) Winterfat.

From United States. Donated by Los Lunas Plant Materials Center, Soil Conservation Service, USDA; Los Lunas, New Mexico. Received through National Plant Materials Center, SCS, Beltsville, Md. Received May 1983.

478840-continued

T 4549. United States. Collected 1958. San Luis, New Mexico. 1970m. Rapid germination. Establishment easy. Perennial Woody. Wild. Seed.

478841. *Atriplex canescens* (Pursh) Nutt. (Chenopodiaceae) Fourwing saltbush.

From United States. Donated by Upper Colorado Environmental Plant Center, Soil Conservation Service, USDA; Meeker, Colorado. Received through National Plant Materials Center, SCS, Beltsville, Md. Received May 1983.

T 30609. 'Rincon'. United States. Rincon Blanco, New Mexico. 2600m. Shrub evergreen, leafy. Foliage production high. Nutritious for livestock and wildlife. Used in depleted rangeland. Perennial Woody. Cultivar. Seed.

478842 TO 478843. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by Merkle, O.G.; Plant Science Research Laboratory, USDA-ARS; Stillwater, Oklahoma. Received September 1983.

478842. United States. Wings//Samson/KS70H208/3/2\*Vona. Hard red type. Plants short statured, resemble Vona in height, general plant appearance, and maturity. Resistant through H3 gene to Hessian fly (*Mayetiola destructor*). Winter Annual. Breeding Material. Seed.

478843. United States. Tam106//Oasis/KS70H208/3/2\*Tam106. Hard red type. Plants short statured, resemble Tam106 in height, general plant appearance, and maturity. Resistant through H3 gene to Hessian fly (*Mayetiola destructor*). Winter Annual. Breeding Material. Seed.

478844. *Medicago hybrid* (Fabaceae).

From Soviet Union. Donated by N. I. Vavilov Institute of Plant Industry; Leningrad. Received August 1983.

VIR 29007. Soviet Union. *M. hemicycla*/ *M. glutinosa*. Daghستان ASSR. Breeding Material. Seed.

478845 TO 478848. *Leucaena leucocephala* (Lam.) de Wit (Fabaceae) Leadtree.

From United States. Collected by Soffes, Ann; Department of



478845 TO 478848-continued

Agronomy, University of Florida; Gainesville, Florida.  
Received through A. J. Oakes, Germplasm Resources  
Laboratory, USDA, Beltsville, MD.  
Received August 1983.

- 478845. United States. Collected 1983. Selection from campus planting. Tree. Cultivated. Seed.
- 478846. United States. Collected 1983. Selection from campus planting. Tree. Cultivated. Seed.
- 478847. United States. Collected 1983. Selection from campus planting. Tree. Cultivated. Seed.
- 478848. United States. Collected 1983. Selection from campus planting. Tree. Cultivated. Seed.

478849 TO 478857. *Arachis hypogaea* L. (Fabaceae) Peanut.

From China, Republic of. Donated by Crops Improvement Department, Tainan District Agricultural Improvement Station; Tainan, Taiwan 700.  
Received August 1983.

- 478849. Peru. NC AC 17090. ICRISAT, India. ICG 1675. Collected by W. C. Gregory. Valencia (fastigiata type). Testa tan. Rust resistant. Landrace. Seed.
- 478850. Uganda. ICRISAT, India. ICG 2716 (EC76446). Valencia (fastigiata type). Testa purple. Probable introduction from South America. Rust resistant. Landrace. Seed.
- 478851. 73(2)-6-26. China, Republic of. Tainan(s) 9/ PI 314817. Spanish type. Rust resistant. Breeding Material. Seed.
- 478852. 74(1)-1-9. China, Republic of. Tainan(s) 9/ PI 314817. Valencia type. Rust resistant. Breeding Material. Seed.
- 478853. 74(1)-1-52. China, Republic of. Tainan(s) 9/ PI 314817. Valencia type. Rust resistant. Breeding Material. Seed.
- 478854. 75(2)-3-21. China, Republic of. Tainan(s) 9/ PI 314817. Spanish type. Rust resistant. Breeding Material. Seed.
- 478855. 78(2)-4-31. China, Republic of. (Tainan(s) 9/PI 314817)/ Tainan(s) 9 BC2. Valencia type. Rust resistant. Breeding Material. Seed.
- 478856. 78(2)-4-33. China, Republic of. (Tainan(s) 9/PI 314817)/ Tainan(s) 9 BC2. Valencia type. Rust resistant. Breeding Material. Seed.

478849 TO 478857-continued

478857. 79(2)-21-62. China, Republic of. (Tainan(s) 9/PI 314817)/  
Tainan(S) 9. Valencia type. Rust resistant. Breeding  
Material. Seed.

478858. *Daucus aureus* Desf. (Apiaceae).

From United States. Donated by McCollum, G.D.; Vegetable  
Laboratory, Horticultural Sciences Institute, USDA;  
Beltsville, Maryland.  
Received July 1983.

France. Dijon. Jardin Botanique. Wild. Seed.

478859 TO 478881. *Daucus carota* L. (Apiaceae).

From United States. Donated by McCollum, G.D.; Vegetable  
Laboratory, Horticultural Sciences Institute, USDA;  
Beltsville, Maryland.  
Received July 1983.

478859. Italy. Botanisches Institut der Universitat Graz,  
Austria. Collected September 19, 1963. Fallow land near  
beach, Misano adriatico near Rimini. Collected by H.  
Teppner. Wild. Seed.

478860. France. Paris. Museum National d'Histoire Naturelle.  
Sample No. 1. Versailles Park, Seine et Oise. Wild. Seed.

478861. France. Paris. Museum National d'Histoire Naturelle.  
Sample No. 2. Versailles Park, Seine et Oise. Wild. Seed.

478862. France. Rouen. Institut National de la Recherche  
Agronomique. Maritime cliffs, Mere (Seine et Oise).  
Donated by M. Kerguelen. Wild. Seed.

478863. German Democratic Repub. Gottingen. Botanischer Garten  
der Universitat Gottingen. Wild. Seed.

478864. German Democratic Repub. Gottingen. Botanischer Garten  
der Universitat Gottingen. Nikolausberg. Wild. Seed.

478865. German Democratic Repub. Greifswald. Bot. Inst. de Ernst-  
Moritz-Arndt Univ. Collected 1963. Strandufer, Altefahr/  
Rugen. Donated by F. Fukarek. Wild. Seed.

478866. German Democratic Repub. Greifswald. Bot. Inst. de Ernst-  
Moritz-Arndt Univ. Greifswald. Donated by F. Fukarek.  
Wild. Seed.

478867. German Democratic Repub. Greifswald. Bot. Inst. de Ernst-

478859 TO 478881-continued

- Moritz-Arndt Univ. Hiddensee Island. Donated by F. Fukarek. Wild. Seed.
478868. German Democratic Repub. Halle (Saale). Botanischer Garten der Universitat Halle. Assekamm near Gross Vahlberg above Wolfenbittel. Wild. Seed.
478869. German Democratic Repub. Halle (Saale). Botanischer Garten der Universitat Halle. Near Juterbog. Wild. Seed.
478870. German Democratic Repub. Halle (Saale). Botanischer Garten der Universitat Halle. Near Margaretenhof, Kreis Gransee. Wild. Seed.
478871. German Democratic Repub. Halle (Saale). Botanischer Garten der Universitat Halle. Sangerhausen. Wild. Seed.
478872. German Democratic Repub. Halle (Saale). Botanischer Garten der Universitat Halle. Wolferode, near Eisleben. Wild. Seed.
478873. Italy. Cagliari. Instituto Botanico della Universita. St. Elia beach, 50m from the sea, Cagliari, Sardinia. Wild. Seed.
478874. Italy. Catania, Sicily. Orto Botanico dell' Universita di Catania. No. 720. Wild. Seed.
478875. Italy. Napoli. Hortus Botanicus Portici, Universita di Napoli. Collected 1963. Larino Province (Campobasso). Wild. Seed.
478876. Italy. Rome. Instituto e Orto Botanico, Universita di Roma. Wild. Seed.
478877. Switzerland. Geneva. Conservatoire et Jardin Botaniques. Sample No. 1. Unmown field, Vandoeuvres, Geneva. 459m. Collected by S. Vautier. Wild. Seed.
478878. Switzerland. Geneva. Conservatoire et Jardin Botaniques. Sample No. 2. Unmown field, Vandoeuvres, Geneva. 459m. Collected by S. Vautier. Wild. Seed.
478879. Switzerland. Geneva. Conservatoire et Jardin Botaniques. Sample No. 3. Unmown field, Vandoeuvres, Geneva. 459m. Collected by S. Vautier. Wild. Seed.
478880. Switzerland. Geneva. Conservatoire et Jardin Botaniques. Mown field, Pinchat/Carouge, Geneva. 472m. Collected by J.-D. Bersier. Wild. Seed.
478881. United States. Roadside between Echo and Pendleton, Oregon. Collected by J. Percz, Parma, Idaho. Wild. Seed.

478882. *Daucus carota* L. subsp. *carota* (Apiaceae) Wild carrot.

From United States. Donated by McCollum, G.D.; Vegetable Laboratory, Horticultural Sciences Institute, USDA; Beltsville, Maryland.  
Received July 1983.

Czechoslovakia. Botanical Garden, University of Brno. Collected 1962. Donated by Institut für Kulturpflanzenforschung der Deutschen Akademie der Wissenschaften, Berlin, Gatersleben Krs. Aschersleben. Lot # K794/62. Received as *Daucus carota* subsp. *silvestris*. Cultivated. Seed.

478883. *Daucus carota* subsp. *gadecaei* (Rouy & Canus) Heywood (Apiaceae).

From United States. Donated by McCollum, G.D.; Vegetable Laboratory, Horticultural Sciences Institute, USDA; Beltsville, Maryland.  
Received July 1983.

France. Rouen. Institut National de la Recherche Agronomique. Maritime turf, Le Conquet (Finistere). Donated by M. Kerguelen. Wild. Seed.

478884. *Daucus carota* subsp. *gummifer* Hook. f. (Apiaceae).

From United States. Donated by McCollum, G.D.; Vegetable Laboratory, Horticultural Sciences Institute, USDA; Beltsville, Maryland.  
Received July 1983.

Netherlands. Leiden. Botanical Garden. Donated by Institut für Kulturpflanzenforschung der Deutschen Akademie der Wissenschaften, Berlin, Gatersleben, Krs. Aschersleben. Lot # K955/62. Wild. Seed.

478885. *Daucus pusillus* Michx. (Apiaceae) Rattlesnake weed.

From United States. Donated by McCollum, G.D.; Vegetable Laboratory, Horticultural Sciences Institute, USDA; Beltsville, Maryland.  
Received July 1983.

United States. Flagstaff, Arizona. Museum of Northern Arizona. Collected May 28, 1958. South, 4.8km of Sedonia, Arizona. Donated by W.B. McDougall. Wild. Seed.

478886. *Nicotiana rustica* L. (Solanaceae) Aztec tobacco.

From India. Donated by National Bureau of Plant Genetic Resources, IARI; New Delhi-PIN:110012.  
Received August 1983.

GC-1. India. Anand, Gujarat. Cultivated. Seed.

478887 TO 478891. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Senegal. Donated by Gautreau, J.; Institut Senegalais de Recherches Agricoles (ISRA), Centre National de Recherches Agronomiques; Bambey.  
Received July 1983.

- 478887. 79-85. Senegal. ((28-206x48-115) x 57-422) x 57-422. F10. Breeding Material. Seed.
- 478888. 2095. Senegal. 55-437 x 75-17. F7. PI 337409 equals 75-17. Breeding Material. Seed.
- 478889. 2098. Senegal. 55-437 x 75-17. F7. PI 337409 equals 75-17. Breeding Material. Seed.
- 478890. 2212. Senegal. 55-437 x 75-18. F7. PI 337394 equals 75-18. Breeding Material. Seed.
- 478891. 5021. Senegal. 55-437 x 55-437 (large podded mutation). F10. Breeding Material. Seed.

478892 TO 478897. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by Roberts, J.J.; USDA-ARS, Purdue University; W. Lafayette, Indiana.  
Received September 1983.

- 478892. 'Compton'. United States. Complex involving several sources of disease and insect resistance. Soft red type. High yield potential. Appearance similar to Auburn and Caldwell in plant type, height and maturity. Seeds large. Glumes reddish-brown. Short rachis internodes. Resistant to Septoria leaf blotch, powdery mildew, leaf rust and the currently prevalent biotypes of the Hessian fly. Moderately resistant to soil-borne mosaic, spindle streak and barley yellow dwarf. Acceptable soft wheat milling and baking quality. Cultivar. Seed.
- 478893. Combo. United States. Complex involving several sources of disease and insect resistance. Plants short, straw stiff, chaff light brown, awns short tipped. Leaf pubescence denser than Downy. Moderately susceptible to powdery mildew and leaf rust. Resistant to biotypes B and

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D of the Hessian fly. Resistant to cereal leaf beetle.  
Cultivar. Seed.

478894. Burr. United States. Complex involving several sources of disease and insect resistance. Plants short, straw stiff, chaff brown. Leaf pubescence very dense. Moderately susceptible to powdery mildew and leaf rust, and moderately resistant to Septoria leaf blotch. Resistant to biotypes B and D of the Hessian fly. Resistant to cereal leaf beetle. Cultivar. Seed.
478895. Dowel. United States. Dny/3/Cwl/Oas sib/2/Fuzz/a4a/Dny/Elmo. Plants semi-dwarf, straw stiff, chaff brown. Leaf pubescence similar to Downy. Resistant to leaf rust, moderately resistant to powdery mildew, and moderately susceptible to Septoria leaf blotch. Resistant to biotypes B and D of the Hessian fly. Resistant to cereal leaf beetle. Similar to Caldwell at maturity. Cultivar. Seed.
478896. Eider. United States. Dny/3/Cwl/Oas sib/2/Fuzz/a4a/Dny/Elmo. Plants semi-dwarf, straw stiff, chaff brown. Leaf pubescence similar to Downy. Resistant to leaf rust and powdery mildew, and moderately resistant to Septoria leaf blotch. Resistant to biotypes B and D of the Hessian fly. Resistant to cereal leaf beetle. Cultivar. Seed.
478897. Barb. United States. Dny/3/Cwl/Oas sib/2/Fuzz/a4a/Dny/Elmo. Plants semi-dwarf, straw stiff, chaff dark brown. Leaf pubescence similar to Downy. Resistant to leaf rust, powdery mildew, and moderately resistant to Septoria leaf blotch. Resistant to biotypes B and D of the Hessian fly. Resistant to cereal leaf beetle. Cultivar. Seed.

478898 TO 479199. Zea mays L. (Poaceae) Field corn.

From Mexico. Donated by Centro Internacional de Mejoramiento de Maiz and Trigo; Mexico 6, D.F. Received through Pioneer Hi-Bred International, Inc., Dept. of Corn Breeding, Homestead, FL.  
Received August 1983.

478898. SLP 20. Mexico. S.L. Fotosi. Cultivated. Seed.
478899. SLP 63. Mexico. S.L. Fotosi. Cultivated. Seed.
478900. SLP 107. Mexico. S.L. Potosi. Cultivated. Seed.
478901. SLP 121. Mexico. S.L. Potosi. Cultivated. Seed.
478902. BRASIL 15. Brazil. Cultivated. Seed.

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- 478903. BRASIL 759. Brazil. Cultivated. Seed.
- 478904. C.RIC 182. Costa Rica. Cultivated. Seed.
- 478905. C.RIC 210. Costa Rica. Cultivated. Seed.
- 478906. C.RIC 217. Costa Rica. Cultivated. Seed.
- 478907. C.RIC 219. Costa Rica. Cultivated. Seed.
- 478908. C.RIC 287. Costa Rica. Cultivated. Seed.
- 478909. CUBA 63. Cuba. Cultivated. Seed.
- 478910. DOMI R272. Dominican Republic. Cultivated. Seed.
- 478911. DOMI R286. Dominican Republic. Cultivated. Seed.
- 478912. DOMI 291. Dominican Republic. Cultivated. Seed.
- 478913. DOMI R299. Dominican Republic. Cultivated. Seed.
- 478914. SALV 9. El Salvador. Cultivated. Seed.
- 478915. SALV 29. El Salvador. Cultivated. Seed.
- 478916. SALV 41. El Salvador. Cultivated. Seed.
- 478917. SALV 43. El Salvador. Cultivated. Seed.
- 478918. SALV 46. El Salvador. Cultivated. Seed.
- 478919. SALV 53. El Salvador. Cultivated. Seed.
- 478920. SALV 56. El Salvador. Cultivated. Seed.
- 478921. SALV 57. El Salvador. Cultivated. Seed.
- 478922. SALV 58. El Salvador. Cultivated. Seed.
- 478923. SALV 63. El Salvador. Cultivated. Seed.
- 478924. SALV 64. El Salvador. Cultivated. Seed.
- 478925. SALV 70. El Salvador. Cultivated. Seed.
- 478926. SALV 71. El Salvador. Cultivated. Seed.
- 478927. SALV 73. El Salvador. Cultivated. Seed.
- 478928. SALV 74. El Salvador. Cultivated. Seed.

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478929. SALV 81. El Salvador. Cultivated. Seed.  
478930. SALV 85. El Salvador. Cultivated. Seed.  
478931. SALV 89. El Salvador. Cultivated. Seed.  
478932. SALV 94. El Salvador. Cultivated. Seed.  
478933. SALV 95. El Salvador. Cultivated. Seed.  
478934. SALV 98. El Salvador. Cultivated. Seed.  
478935. SALV 99. El Salvador. Cultivated. Seed.  
478936. SALV 105. El Salvador. Cultivated. Seed.  
478937. SALV 106. El Salvador. Cultivated. Seed.  
478938. SALV 108. El Salvador. Cultivated. Seed.  
478939. SALV 111. El Salvador. Cultivated. Seed.  
478940. GUAT 59. Guatemala. Cultivated. Seed.  
478941. GUAT 121. Guatemala. Cultivated. Seed.  
478942. HONDU 52. Honduras. Cultivated. Seed.  
478943. HONDU 56. Honduras. Cultivated. Seed.  
478944. HONDU 62. Honduras. Cultivated. Seed.  
478945. HONDU 63. Honduras. Cultivated. Seed.  
478946. HONDU 66. Honduras. Cultivated. Seed.  
478947. HONDU 70. Honduras. Cultivated. Seed.  
478948. HONDU 72. Honduras. Cultivated. Seed.  
478949. HONDU 80. Honduras. Cultivated. Seed.  
478950. HONDU 81. Honduras. Cultivated. Seed.  
478951. HONDU 86. Honduras. Cultivated. Seed.  
478952. HONDU 96. Honduras. Cultivated. Seed.  
478953. HONDU 107. Honduras. Cultivated. Seed.  
478954. HONDU 113. Honduras. Cultivated. Seed.



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- 478955. HONDU 119. Honduras. Cultivated. Seed.
- 478956. HONDU 120. Honduras. Cultivated. Seed.
- 478957. HONDU 124. Honduras. Cultivated. Seed.
- 478958. HONDU 128. Honduras. Cultivated. Seed.
- 478959. HONDU 129. Honduras. Cultivated. Seed.
- 478960. HONDU 132. Honduras. Cultivated. Seed.
- 478961. HONDU 133. Honduras. Cultivated. Seed.
- 478962. JAMAI 9. Jamaica. Cultivated. Seed.
- 478963. CAMP 11. Mexico. Campeche. Cultivated. Seed.
- 478964. CAMP 39C. Mexico. Campeche. Cultivated. Seed.
- 478965. CAMP 48C. Mexico. Campeche. Cultivated. Seed.
- 478966. CHIS 24. Mexico. Chiapas. Cultivated. Seed.
- 478967. CHIS 25. Mexico. Chiapas. Cultivated. Seed.
- 478968. CHIS 26. Mexico. Chiapas. Cultivated. Seed.
- 478969. CHIS 30. Mexico. Chiapas. Cultivated. Seed.
- 478970. CHIS 31. Mexico. Chiapas. Cultivated. Seed.
- 478971. CHIS 61. Mexico. Chiapas. Cultivated. Seed.
- 478972. CHIS 62. Mexico. Chiapas. Cultivated. Seed.
- 478973. CHIS 75. Mexico. Chihuahua. Cultivated. Seed.
- 478974. CHIS 76. Mexico. Chiapas. Cultivated. Seed.
- 478975. CHIS 77. Mexico. Chiapas. Cultivated. Seed.
- 478976. CHIS 78. Mexico. Chiapas. Cultivated. Seed.
- 478977. CHIS 101. Mexico. Chiapas. Cultivated. Seed.
- 478978. CHIS 107. Mexico. Chiapas. Cultivated. Seed.
- 478979. CHIS 108. Mexico. Chiapas. Cultivated. Seed.
- 478980. CHIS 109. Mexico. Chiapas. Cultivated. Seed.

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- 478981. CHIS 110. Mexico. Chiapas. Cultivated. Seed.
- 478982. CHIS 162. Mexico. Chiapas. Cultivated. Seed.
- 478983. CHIS 172. Mexico. Chiapas. Cultivated. Seed.
- 478984. CHIS 208. Mexico. Chiapas. Cultivated. Seed.
- 478985. CHIS 209. Mexico. Chiapas. Cultivated. Seed.
- 478986. CHIS 222. Mexico. Chiapas. Cultivated. Seed.
- 478987. CHIS 223. Mexico. Chiapas. Cultivated. Seed.
- 478988. CHIS 225. Mexico. Chiapas. Cultivated. Seed.
- 478989. CHIS 226. Mexico. Chiapas. Cultivated. Seed.
- 478990. COAH 4. Mexico. Coahuila. Cultivated. Seed.
- 478991. COAH 12. Mexico. Coahuila. Cultivated. Seed.
- 478992. COAH 35. Mexico. Coahuila. Cultivated. Seed.
- 478993. COAH 50. Mexico. Coahuila. Cultivated. Seed.
- 478994. COAH 65. Mexico. Coahuila. Cultivated. Seed.
- 478995. COL 1. Mexico. Colima. Cultivated. Seed.
- 478996. COL 5. Mexico. Colima. Cultivated. Seed.
- 478997. COL 6. Mexico. Colima. Cultivated. Seed.
- 478998. COL 15. Mexico. Colima. Cultivated. Seed.
- 478999. GRO 36. Mexico. Guerrero. Cultivated. Seed.
- 479000. GRO 45. Mexico. Guerrero. Cultivated. Seed.
- 479001. GRO 55. Mexico. Guerrero. Cultivated. Seed.
- 479002. GRO 91. Mexico. Guerrero. Cultivated. Seed.
- 479003. GRO 100. Mexico. Guerrero. Cultivated. Seed.
- 479004. GRO 111. Mexico. Guerrero. Cultivated. Seed.
- 479005. GRO 121. Mexico. Guerrero. Cultivated. Seed.
- 479006. GRO 130. Mexico. Guerrero. Cultivated. Seed.

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479007. GRO 134. Mexico. Guerrero. Cultivated. Seed.  
479008. GRO 150. Mexico. Guerrero. Cultivated. Seed.  
479009. GRO 151. Mexico. Guerrero. Cultivated. Seed.  
479010. GRO 153. Mexico. Guerrero. Cultivated. Seed.  
479011. GRO 157. Mexico. Guerrero. Cultivated. Seed.  
479012. GRO 158. Mexico. Guerrero. Cultivated. Seed.  
479013. GRO 159. Mexico. Guerrero. Cultivated. Seed.  
479014. GRO 165. Mexico. Guerrero. Cultivated. Seed.  
479015. GRO 173. Mexico. Guerrero. Cultivated. Seed.  
479016. GRO 176. Mexico. Guerrero. Cultivated. Seed.  
479017. GRO 177. Mexico. Guerrero. Cultivated. Seed.  
479018. GRO 182. Mexico. Guerrero. Cultivated. Seed.  
479019. GRO 183. Mexico. Guerrero. Cultivated. Seed.  
479020. GRO 185. Mexico. Guerrero. Cultivated. Seed.  
479021. GRO 192. Mexico. Guerrero. Cultivated. Seed.  
479022. GRO 193. Mexico. Guerrero. Cultivated. Seed.  
479023. GRO 194. Mexico. Guerrero. Cultivated. Seed.  
479024. GRO 202. Mexico. Guerrero. Cultivated. Seed.  
479025. GRO 210. Mexico. Guerrero. Cultivated. Seed.  
479026. GRO 212. Mexico. Guerrero. Cultivated. Seed.  
479027. MICH 102. Mexico. Michoacan. Cultivated. Seed.  
479028. MICH 105. Mexico. Michoacan. Cultivated. Seed.  
479029. MICH 129. Mexico. Michoacan. Cultivated. Seed.  
479030. MICH 135. Mexico. Michoacan. Cultivated. Seed.  
479031. MICH 137. Mexico. Michoacan. Cultivated. Seed.  
479032. MICH 141. Mexico. Michoacan. Cultivated. Seed.

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- 479033. MICH 146. Mexico. Michoacan. Cultivated. Seed.
- 479034. MICH 169. Mexico. Michoacan. Cultivated. Seed.
- 479035. MICH 173. Mexico. Michoacan. Cultivated. Seed.
- 479036. MICH 176. Mexico. Michoacan. Cultivated. Seed.
- 479037. MICH 177. Mexico. Michoacan. Cultivated. Seed.
- 479038. MICH 178. Mexico. Michoacan. Cultivated. Seed.
- 479039. MICH 181. Mexico. Michoacan. Cultivated. Seed.
- 479040. MICH 183. Mexico. Michoacan. Cultivated. Seed.
- 479041. MICH 201. Mexico. Michoacan. Cultivated. Seed.
- 479042. NAY 21. Mexico. Nayarit. Cultivated. Seed.
- 479043. NAY 26. Mexico. Nayarit. Cultivated. Seed.
- 479044. NAY 32. Mexico. Nayarit. Cultivated. Seed.
- 479045. NAY 47. Mexico. Nayarit. Cultivated. Seed.
- 479046. NAY 61. Mexico. Nayarit. Cultivated. Seed.
- 479047. NL 3. Mexico. Nuevo Leon. Cultivated. Seed.
- 479048. NL 7. Mexico. Nuevo Leon. Cultivated. Seed.
- 479049. NL 18. Mexico. Nuevo Leon. Cultivated. Seed.
- 479050. OAX 15. Mexico. Oaxaca. Cultivated. Seed.
- 479051. OAX 19. Mexico. Oaxaca. Cultivated. Seed.
- 479052. OAX 31. Mexico. Oaxaca. Cultivated. Seed.
- 479053. OAX 36. Mexico. Oaxaca. Cultivated. Seed.
- 479054. OAX 50. Mexico. Oaxaca. Cultivated. Seed.
- 479055. OAX 66. Mexico. Oaxaca. Cultivated. Seed.
- 479056. OAX 81. Mexico. Oaxaca. Cultivated. Seed.
- 479057. OAX 90. Mexico. Oaxaca. Cultivated. Seed.
- 479058. OAX 126. Mexico. Oaxaca. Cultivated. Seed.

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- 479059. OAX 127. Mexico. Oaxaca. Cultivated. Seed.
- 479060. OAX 129. Mexico. Oaxaca. Cultivated. Seed.
- 479061. OAX 131. Mexico. Oaxaca. Cultivated. Seed.
- 479062. OAX 158. Mexico. Oaxaca. Cultivated. Seed.
- 479063. OAX 166. Mexico. Oaxaca. Cultivated. Seed.
- 479064. QROO 3. Mexico. Quintana Roo. Cultivated. Seed.
- 479065. QROO 4. Mexico. Quintana Roo. Cultivated. Seed.
- 479066. SIN 1. Mexico. Sinaloa. Cultivated. Seed.
- 479067. SINA 4. Mexico. Sinaloa. Cultivated. Seed.
- 479068. SON 4. Mexico. Sonora. Cultivated. Seed.
- 479069. SON 23. Mexico. Sonora. Cultivated. Seed.
- 479070. SON 27. Mexico. Sonora. Cultivated. Seed.
- 479071. SON 29. Mexico. Sonora. Cultivated. Seed.
- 479072. SON 51. Mexico. Sonora. Cultivated. Seed.
- 479073. TAMS 21. Mexico. Tamaulipas. Cultivated. Seed.
- 479074. TAMS 30. Mexico. Tamaulipas. Cultivated. Seed.
- 479075. VER 42. Mexico. Veracruz. Cultivated. Seed.
- 479076. VER 43. Mexico. Veracruz. Cultivated. Seed.
- 479077. VER 45. Mexico. Veracruz. Cultivated. Seed.
- 479078. VER 56. Mexico. Veracruz. Cultivated. Seed.
- 479079. VER 73. Mexico. Veracruz. Cultivated. Seed.
- 479080. VER 83. Mexico. Veracruz. Cultivated. Seed.
- 479081. VER 162. Mexico. Veracruz. Cultivated. Seed.
- 479082. VER 174. Mexico. Veracruz. Cultivated. Seed.
- 479083. VER 183. Mexico. Veracruz. Cultivated. Seed.
- 479084. VER 185. Mexico. Veracruz. Cultivated. Seed.

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- 479085. VER 191. Mexico. Veracruz. Cultivated. Seed.
- 479086. VER 196. Mexico. Veracruz. Cultivated. Seed.
- 479087. VER 210. Mexico. Veracruz. Cultivated. Seed.
- 479088. VER 218. Mexico. Veracruz. Cultivated. Seed.
- 479089. YUC 4. Mexico. Yucatan. Cultivated. Seed.
- 479090. YUC 33. Mexico. Yucatan. Cultivated. Seed.
- 479091. YUC 35. Mexico. Yucatan. Cultivated. Seed.
- 479092. YUC 48. Mexico. Yucatan. Cultivated. Seed.
- 479093. YUC 51. Mexico. Yucatan. Cultivated. Seed.
- 479094. YUC 55. Mexico. Yucatan. Cultivated. Seed.
- 479095. YUC 85. Mexico. Yucatan. Cultivated. Seed.
- 479096. YUC 93. Mexico. Yucatan. Cultivated. Seed.
- 479097. YUC 118. Mexico. Yucatan. Cultivated. Seed.
- 479098. YUC 126. Mexico. Yucatan. Cultivated. Seed.
- 479099. YUC 127. Mexico. Yucatan. Cultivated. Seed.
- 479100. YUC 147. Mexico. Yucatan. Cultivated. Seed.
- 479101. YUC 154. Mexico. Yucatan. Cultivated. Seed.
- 479102. NICAR 2. Nicaragua. Cultivated. Seed.
- 479103. NICAR 33. Nicaragua. Cultivated. Seed.
- 479104. NICAR 62. Nicaragua. Cultivated. Seed.
- 479105. NICAR 72. Nicaragua. Cultivated. Seed.
- 479106. NICAR 81. Nicaragua. Cultivated. Seed.
- 479107. NICAR 84. Nicaragua. Cultivated. Seed.
- 479108. NICAR 89. Nicaragua. Cultivated. Seed.
- 479109. NICAR 92. Nicaragua. Cultivated. Seed.
- 479110. NICAR 113. Nicaragua. Cultivated. Seed.

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- 479111. NICAR 119. Nicaragua. Cultivated. Seed.
- 479112. NICAR 174. Nicaragua. Cultivated. Seed.
- 479113. PANAM 61. Panama. Cultivated. Seed.
- 479114. PANAM 70. Panama. Cultivated. Seed.
- 479115. PANAM 80. Panama. Cultivated. Seed.
- 479116. PANAM 87. Panama. Cultivated. Seed.
- 479117. PANAM 104. Panama. Cultivated. Seed.
- 479118. PANAM 115. Panama. Cultivated. Seed.
- 479119. PANAM 132. Panama. Cultivated. Seed.
- 479120. PANAM 137. Panama. Cultivated. Seed.
- 479121. PANAM 147. Panama. Cultivated. Seed.
- 479122. PARAG 117. Paraguay. Cultivated. Seed.
- 479123. PARAG 121. Paraguay. Cultivated. Seed.
- 479124. TOBAG 6. Trinidad and Tobago. Cultivated. Seed.
- 479125. TRIN 10. Trinidad and Tobago. Cultivated. Seed.
- 479126. TRIN 12. Trinidad and Tobago. Cultivated. Seed.
- 479127. URU 40A. Uruguay. Cultivated. Seed.
- 479128. URU 98A. Uruguay. Cultivated. Seed.
- 479129. URU 175A. Uruguay. Cultivated. Seed.
- 479130. URU 191A. Uruguay. Cultivated. Seed.
- 479131. URU 209A. Uruguay. Cultivated. Seed.
- 479132. URU 211A. Uruguay. Cultivated. Seed.
- 479133. URU 221A. Uruguay. Cultivated. Seed.
- 479134. URU 243A. Uruguay. Cultivated. Seed.
- 479135. URU 247A. Uruguay. Cultivated. Seed.
- 479136. URU 250A. Uruguay. Cultivated. Seed.

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479137. URU 251A. Uruguay. Cultivated. Seed.  
479138. URU 252A. Uruguay. Cultivated. Seed.  
479139. URU 257A. Uruguay. Cultivated. Seed.  
479140. URU 259A. Uruguay. Cultivated. Seed.  
479141. URU 261A. Uruguay. Cultivated. Seed.  
479142. URU 269A. Uruguay. Cultivated. Seed.  
479143. URU 273A. Uruguay. Cultivated. Seed.  
479144. URU 277A. Uruguay. Cultivated. Seed.  
479145. URU 281A. Uruguay. Cultivated. Seed.  
479146. URU 288A. Uruguay. Cultivated. Seed.  
479147. URU 291A. Uruguay. Cultivated. Seed.  
479148. URU 292A. Uruguay. Cultivated. Seed.  
479149. URU 293A. Uruguay. Cultivated. Seed.  
479150. URU 295A. Uruguay. Cultivated. Seed.  
479151. URU 300A. Uruguay. Cultivated. Seed.  
479152. URU 302A. Uruguay. Cultivated. Seed.  
479153. URU 303A. Uruguay. Cultivated. Seed.  
479154. URU 306A. Uruguay. Cultivated. Seed.  
479155. URU 307A. Uruguay. Cultivated. Seed.  
479156. URU 318A. Uruguay. Cultivated. Seed.  
479157. URU 326A. Uruguay. Cultivated. Seed.  
479158. URU 328A. Uruguay. Cultivated. Seed.  
479159. URU 329A. Uruguay. Cultivated. Seed.  
479160. URU 333A. Uruguay. Cultivated. Seed.  
479161. URU 336A. Uruguay. Cultivated. Seed.  
479162. URU 338A. Uruguay. Cultivated. Seed.



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479163. URU 341A. Uruguay. Cultivated. Seed.  
479164. URU 346A. Uruguay. Cultivated. Seed.  
479165. URU 354A. Uruguay. Cultivated. Seed.  
479166. URU 356A. Uruguay. Cultivated. Seed.  
479167. URU 358A. Uruguay. Cultivated. Seed.  
479168. URU 361A. Uruguay. Cultivated. Seed.  
479169. URU 366A. Uruguay. Cultivated. Seed.  
479170. URU 370A. Uruguay. Cultivated. Seed.  
479171. URU 371A. Uruguay. Cultivated. Seed.  
479172. URU 372A. Uruguay. Cultivated. Seed.  
479173. URU 374A. Uruguay. Cultivated. Seed.  
479174. URU 376A. Uruguay. Cultivated. Seed.  
479175. URU 379A. Uruguay. Cultivated. Seed.  
479176. URU 385A. Uruguay. Cultivated. Seed.  
479177. URU 387A. Uruguay. Cultivated. Seed.  
479178. URU 389A. Uruguay. Cultivated. Seed.  
479179. URU 392A. Uruguay. Cultivated. Seed.  
479180. URU 397A. Uruguay. Cultivated. Seed.  
479181. URU 406A. Uruguay. Cultivated. Seed.  
479182. URU 414A. Uruguay. Cultivated. Seed.  
479183. URU 425A. Uruguay. Cultivated. Seed.  
479184. URU 426A. Uruguay. Cultivated. Seed.  
479185. URU 427A. Uruguay. Cultivated. Seed.  
479186. URU 428A. Uruguay. Cultivated. Seed.  
479187. URU 503A. Uruguay. Cultivated. Seed.  
479188. URU 729A. Uruguay. Cultivated. Seed.

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- 479189. URU 1014A. Uruguay. Cultivated. Seed.
- 479190. URU 1015A. Uruguay. Cultivated. Seed.
- 479191. URU 1018A. Uruguay. Cultivated. Seed.
- 479192. URU 1024A. Uruguay. Cultivated. Seed.
- 479193. URU 1029A. Uruguay. Cultivated. Seed.
- 479194. URU 1031A. Uruguay. Cultivated. Seed.
- 479195. URU 1048A. Uruguay. Cultivated. Seed.
- 479196. URU 1150A. Uruguay. Cultivated. Seed.
- 479197. URU 1156A. Uruguay. Cultivated. Seed.
- 479198. URU 1157A. Uruguay. Cultivated. Seed.
- 479199. URU 1195A. Uruguay. Cultivated. Seed.

479200 TO 479210. *Lycopersicon esculentum* Mill. (Solanaceae) Tomato.

From Colombia. Donated by Lobo, M.; Plant Breeding Program,  
Instituto Colombiano Agropecuario; 51764 Medellin.  
Received September 1983.

- 479200. LLS 1. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.
- 479201. LLS 3. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.
- 479202. LLS 5. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.
- 479203. LLS 6. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.
- 479204. LLS 7. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.
- 479205. LLS 8. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.
- 479206. LLS 9. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.
- 479207. LLS 10. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.

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479208. LLS 13. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.

479209. LLS 14. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.

479210. LLS 15. Colombia. Some field resistance to late blight.  
Breeding Material. Seed.

479211. *Lycopersicon esculentum* var. *cerasiforme* (Dunal) A. Gray  
(Solanaceae) Cherry tomato.

From Colombia. Donated by Lobo, M.; Plant Breeding Program,  
Instituto Colombiano Agropecuario; 51764 Medellin.  
Received September 1983.

Cra. Colombia. Colombian Amazonian Basin. Plants set  
fruit under high temperature and humidity. Cultivar. Seed.

479212. *Sinapidendron bourgeauii* Webb ex Christ (Brassicaceae).

From Norway. Donated by Borgen, L.; Botanical Garden, University  
of Oslo; Oslo, 5. Received through G.D. McCollum,  
Vegetable Laboratory, USDA-ARS, Beltsville, MD.  
Received August 1983.

Spain. Collected February 28, 1978. Barranco Jieque,  
south of Tijarafe, west coast of La Palma, Canary Islands.  
600m. Collected by L. Borgen and Elven. Plants found on  
rocks. Received as *Brassica bourgeauii*. Wild. Seed.

479213. *Artocarpus heterophyllus* Lam. (Moraceae) Jackfruit.

From United States. Collected by Knight, R.J.; Subtropical  
Horticulture Research Station, USDA-ARS; Miami, Florida.  
Received through Rare Fruit Council International, Inc.,  
Miami, Florida.  
Received August 1983.

M-22648. 'Kunwichan'. Thailand. Bangkok Noi. Pong  
Nursery. Cultivar. Plants.

479214. *Averrhoa carambola* L. (Oxalidaceae) Carambola.

From United States. Collected by Knight, R.J.; Subtropical  
Horticulture Research Station, USDA-ARS; Miami, Florida.  
Received through Rare Fruit Council International, Inc.,  
Miami, Florida.

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Received August 1983.

M-22647. 'Fwang Tung'. Thailand. Bangkok Noi. Pong Nursery. Cultivar. Plants.

479215. *Dimocarpus longan* Lour. (Sapindaceae) Longan.

From United States. Collected by Knight, R.J.; Subtropical Horticulture Research Station, USDA-ARS; Miami, Florida.

Received through Rare Fruit Council International, Inc., Miami, Florida.

Received August 1983.

M-22638. 'E-Dol'. Thailand. Nursery near Chiang Mai. Propagated from air layer (marcot). Received as *Euphoria longan*. Cultivar. Plants.

479216. *Litchi chinensis* Sonn. (Sapindaceae) Litchi.

From United States. Collected by Knight, R.J.; Subtropical Horticulture Research Station, USDA-ARS; Miami, Florida.

Received through Rare Fruit Council International, Inc., Miami, Florida.

Received August 1983.

M-22636. 'Black Leaf'. Thailand. Chiang Mai. Huay Kog Ma Research Station. Propagated from air layer (marcot). Cultivar. Plants.

479217 TO 479236. *Mangifera indica* L. (Anacardiaceae) Mango.

From United States. Collected by Knight, R.J.; Subtropical Horticulture Research Station, USDA-ARS; Miami, Florida.

Received through Rare Fruit Council International, Inc., Miami, Florida.

Received August 1983.

479217. M-22414. 'Katar Rum Rung'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar. Scionwood.

479218. M-22415. 'Praya Sowoy'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar. Scionwood.

479219. M-22416. 'Pam Kai Mia'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar. Scionwood.

479220. M-22417. 'Suwon Tip'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar. Scionwood.

479221. M-22419. 'Hong Sa'. Thailand. Chiang Mai. Chiang Dao

479217 TO 479236-continued

- Nursery. Cultivar. Scionwood.
479222. M-22423. 'Tong Dam'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar name means "Black Gold". Cultivar. Scionwood.
479223. M-22424. 'Pim Sen Man'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar. Scionwood.
479224. M-22427. 'Kyo Savoy'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar. Scionwood.
479225. M-22430. 'Keauw'. Thailand. Chiang Mai. Chiang Dao Nursery. Graft stock for other cultivars. Cultivar. Scionwood.
479226. M-22439. 'Key Toop'. Thailand. Southern Thailand. Cultivar. Scionwood.
479227. M-22441. 'Nuwn Chan'. Thailand. Southern Thailand. Cultivar. Scionwood.
479228. M-22443. 'Mon Tong'. Thailand. Southern Thailand. Cultivar name means "Golden Pillow". Cultivar. Scionwood.
479229. M-22449. 'Sang Tong'. Thailand. Southern Thailand. Cultivar name means "Golden Light". Cultivar. Scionwood.
479230. M-22456. 'Sad Liun Pua'. Thailand. Southern Thailand. Cultivar name means "Wife Forgets Husband". Cultivar. Scionwood.
479231. M-22457. 'Mamou'. Thailand. Southern Thailand. Cultivar name means "Lard". Cultivar. Scionwood.
479232. M-22458. 'Pohn Sawadee'. Thailand. Southern Thailand. Cultivar. Scionwood.
479233. M-22475. 'Leyat'. Thailand. Bangkok. Ban Khen Nursery. Cultivar. Plants.
479234. M-22621. 'Heaw'. Thailand. Chiang Mai. Chiang Dao Nursery. Alternate cultivar name 'Chan Kun Tip'. Cultivar. Plants.
479235. M-22626. 'Okrunng Tong'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar name means "Golden Shirt". Cultivar. Plants.
479236. M-22628. 'Raht'. Thailand. Chiang Mai. Chiang Dao Nursery. Cultivar name means "Rhinoceros". Cultivar. Plants.

479237. *Zea mays* var. *tunicata* Larr. ex St.-Hil. (Poaceae) Pod corn.

From United States. Donated by Shuster, A.H.; Athens, Ohio.  
Received through C. Fowler, Annapolis, Maryland.  
Received September 1983.

United States. Inside wall of farm house, Belfontaine,  
Ohio. Original ear believed to be about 100 years old.  
Cultivated. Seed.

479238 TO 479244. *Triticum aestivum* L. (Poaceae) Common wheat.

From China, Peoples Repub of. Donated by Dong, Yushen; Institute  
of Crop Germplasm Resources, Chinese Academy of  
Agricultural Sciences; Beijing.  
Received September 1983.

479238. Qing xuan 8. China, Peoples Repub of. Gansu Province.  
Winter Annual. Cultivar. Seed.

479239. Tai yuan 116. China, Peoples Repub of. Shanxi Province.  
Winter Annual. Cultivar. Seed.

479240. Tai yuan 633. China, Peoples Repub of. Shanxi Province.  
Winter Annual. Cultivar. Seed.

479241. Tai yuan 843. China, Peoples Repub of. Shanxi Province.  
Winter Annual. Cultivar. Seed.

479242. Tian xuan 15. China, Peoples Repub of. Gansu Province.  
Winter Annual. Cultivar. Seed.

479243. Tian xuan 33. China, Peoples Repub of. Gansu Province.  
Winter Annual. Cultivar. Seed.

479244. Zhang dong 29. China, Peoples Repub of. Gansu Province.  
Winter Annual. Cultivar. Seed.

479245. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Zambia. Donated by Sandhu, R.S.; Msekera Regional Research  
Station; Chipata.  
Received September 1983.

Copperbelt Runner. Zambia. Pure line selection from TMV-  
3 (India). Adapted to low pH soils. Cultivar. Seed.

479246. *Abies homolepis* Sieb. & Zucc. (Pinaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development

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Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-197-82. Japan. US National Arboretum. 51214. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree evergreen, 23m tall. Bark smooth, gray. Leaves lustrous, green, radiate on the branches. Seed collected from one tree. Cultivated. Seed.

**479247. *Abies mariesii* M. T. Mast. (Pinaceae).**

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-345-82. Japan. US National Arboretum. 51364. Collected October 10, 1982. Mt. Tamoyachidake, Rt. 1, Aomori-shi, Aomori-ken, Honshu. 1324m. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Seed collected from 3 plants. Cultivated. Wild. Seed.

**479248 TO 479252: *Abies sachalinensis* (F. Schmidt) M. T. Mast. (Pinaceae).**

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479248. JH-25-82. Japan. US National Arboretum. 51044. Collected September 14, 1982. Dune Forest, Wakasakanai, Toyotomi-machi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Evergreen tree 15m tall. Bark smooth, light gray. Leaves lustrous green above, blue green beneath. Cones erect with exserted bracts. Most common conifer of the area. Growing with JH-20-82. Seed from one tree. Wild. Seed.

479249. JH-128-82. Japan. US National Arboretum. 51076. Collected September 22, 1982. Akkeshi Prefectural Forest, Bekambegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 06' N, Long. 145 deg. 0' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Tree evergreen, 12m tall. Branches wide spreading. Bark smooth, whitish. Leaves lustrous green above. Cones purplish. Common in mixed

479248 TO 479252-continued

deciduous woodland. Seeds collected from several plants.  
Wild. Seed.

479250. JH-78-82. Japan. US National Arboretum. 51097. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow cover 2m per annum. Tree evergreen, up to 4m tall. Leaves lustrous green above. Cones erect on summit of tree. Growing in mixed wood with trees same as JH-75. Seed collected from several trees. Wild. Seed.

479251. JH-91-82. Japan. US National Arboretum. 51110. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow cover 2m per annum. Tree 3.7m tall. Growing by a service road. Seed collected from a single tree. Wild. Seed.

479252. JH-101-82. Japan. US National Arboretum. 51123. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Tree evergreen, 2.5-9m tall. Branches wide spreading. Cones pitchy, terminal on tree, with greenish, exserted bracts. Very common in open areas. Seed collected from 4 plants. Wild. Seed.

479253. *Acanthopanax sciadophylloides* Fr. & Sav. (Araliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-354-82. Japan. US National Arboretum. 51373. Collected October 10, 1982. Arboretum, Mt. Hakkoda Bot. Lab., Tohoku Univ., Sukayu, Aomori-shi, Aomori-ken. Honshu. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Snow cover 2-3m; 58 days covered by 50cm or deeper. Minimum temperature -20C. Seed collected from one plant. Wild. Seed.

479254. *Acer carpinifolium* Sieb. & Zucc. (Aceraceae) Hornbeam maple.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.



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JH-391-82. Japan. US National Arboretum. 51409. Collected October 15, 1982. Mt Idzura, near shrine of Idzura-Kam-non-Son, Tochigi-shi, Tochigi-ken, Honshu. 150m. Honshu. Tree deciduous, small, 9m tall. Branches wide spreading. Bark smooth, dark gray. Samaras light green. Growing in woodland above stream on a ledge under *Crytomeria japonica*. Wild. Seed.

~~479255~~ TO 479259. *Acer caudatum* subsp. *ukurunduense* (Trautv. & C.A. Mey.) E. Murr. (Aceraceae).

From Japan. Collected by Kawase, H.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479255. JH-45-82. Japan. US National Arboretum. 51063. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokarai-cho, Uryu-gun, Hokkaido. Snow cover 1.5-2.5m per annum. Minimum temperature -35C. Near road 275. Bush growing along stream with *Sasa*, to 10 ft. Seed from 2 plants. Received as *Acer ukurunduense*. Wild. Seed.

479256. JH-93-82. Japan. US National Arboretum. 51115. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Shrub, deciduous, 2.5m tall. Branches open. Bark smooth, light gray. Leaves dark green above, gray green beneath. Growing in open woodland along stream, fairly common. Seed collected from many plants. Received as *Acer ukurunduense*. Wild. Seed.

479257. JH-114-82. Japan. US National Arboretum. 51138. Collected September 22, 1982. Akkeshi Prefectural Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. 650m. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Tree deciduous, small, 8m tall, upright habit. Bark smooth, light gray. Leaves dark green above, gray green beneath, petioles often dark reddish, as well as twigs. Inflorescence nearly erect, somewhat arching in fruit. Growing in mixed woodland in field 47. Seed collected from one tree. Received as *Acer ukurunduense*. Wild. Seed.

479258. JH-156-82. Japan. US National Arboretum. 51178. Collected September 24, 1982. W side of Lake Kusharo, Urankoshi, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 34' N, Long. 144 deg. 19' E. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, small,

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8m tall. Branches wide spreading. Bark smooth, light gray. Leaves dark green above, grayish beneath. Samaras with a pinkish tinge, inflorescence nearly erect. Growing near beach. Seed collected from one tree. Received as *Acer ukurunduense*. Wild. Seed.

479259. JH-217-82. Japan. US National Arboretum. 51242. Collected September 29, 1982. Maeyama, Furano-shi, Hokkaido. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, large, 4.6m tall. Multitrunked from base, erect. Growing in woodland. Seed collected from several plants. Received as *Acer ukurunduense*. Wild. Seed.

479260 TO 479261. *Acer japonicum* Thunb. (Aceraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479260. JH-154-82. Japan. US National Arboretum. 51176. Collected September 24, 1982. W side of Lake Kusharo, Urankoshi, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 34' N, Long. 144 deg. 19' E. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, small, 8m tall, twigs dark brown. Leaves dark green above, impressed veins, reddish petioles. Samaras green. Growing in woodland. Seed collected from one tree. Wild. Seed.

479261. JH-188-82. Japan. US National Arboretum. 51205. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree 10m tall. Seed collected from 2 trees. Cultivated. Seed.

479262. *Acer miyabei* Maxim. (Aceraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-256-82. Japan. US National Arboretum. 51274. Collected October 03, 1982. Botanic Garden, Hokkaido Univ., Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg. 22' E. Snow cover 50cm or deeper for 55 days. Minimum temperature -24C. Tree deciduous, 7.6m tall. Branches spreading. Bark rough, blackish, somewhat corky. Leaves

479262-continued

dark green above, lighter beneath. Petioles often somewhat reddish. Seed collected from 3 trees. Cultivated. Seed.

479263 TO 479266. *Acer mono* Maxim. (Aceraceae) Mono maple.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479263. JH-14-82. Japan. US National Arboretum. 51032. Collected September 12, 1982. Sarobetsu Moor, Wakasakanai, Toyotomimachi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Tree deciduous, 7.6m tall, often multitrunked from base, wide-spreading crown. Bark smooth, gray. Leaves dark green above, lighter green beneath. Occasional in oak woodland between highway and pasture. Seed from 3 trees. Wild. Seed.

479264. JH-153-82. Japan. US National Arboretum. 51175. Collected September 24, 1982. W side of Lake Kusharo, Urankoshi, Teshikagamachi, Kawakami-gun, Hokkaido. Lat. 43 deg. 34' N, Long. 144 deg. 19' E. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, 13.7 tall. Branches wide spreading. Bark tight, light gray. Growing in woodland. Seed collected from one tree. Wild. Seed.

479265. JH-238-82. Japan. US National Arboretum. 51256. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm per annum, ground freeze to 70cm. Minimum temperature -30C. Tree deciduous, 15m tall. Bark peeling in thin plates, light gray. Leaves dark green on upper side, pale beneath. Samaras green. Common in woodland. Wild. Seed.

479266. Japan. US National Arboretum. 51417. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US National Arboretum by M. Kawase. Collected in Haboromachi. Seed.

479267 TO 479269. *Acer mono* var. *mayrii* (Schwerin) Koidz. ex Nemoto (Aceraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

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479267. JH-86-82. Japan. US National Arboretum. 51105. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 200m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow cover 2m per annum. Tree deciduous, 11m tall. Leaves bright green above, dull, lighter beneath but shiny, reddish petioles. Fruit somewhat erect on brownish twigs. Growing on rocky bank of stream with trees same as JH-85. Seed collected from 2 trees. Wild. Seed.

479268. JH-127-82. Japan. US National Arboretum. 51152. Collected September 22, 1982. Akkeshi Prefectural Forest, Bekanbegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 06' N, Long. 145 deg. 0' E. Snow cover 40cm per annum, deepest 1.3m. Minimum temperature -20C. Seed collected from one tree. Wild. Seed.

479269. JH-287-82. Japan. US National Arboretum. 51306. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 320m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Tree deciduous, 10.7m tall. Crown round-headed. Branches wide spreading, dark brown. Bark tight, light gray. Leaves dark green above, somewhat lustrous beneath. Growing in woodland. Seed collected from 2 plants. Wild. Seed.

479270 TO 479277. *Acer palmatum* Thunb. (Aceraceae) Japanese maple.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479270. JH-87-82. Japan. US National Arboretum. 51106. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 200m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow cover 2m per annum. Tree deciduous, 7.6m tall, leaning over stream. Twigs smooth, greenish. Bark smooth, light gray. Leaves bright dull green above with reddish petioles. Keys green on reddish peduncle. Growing along rocky stream bank with trees same as JH-85. Seed collected from one tree. Wild. Seed.

479271. JH-90-82. Japan. US National Arboretum. 51109. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow cover 2m per annum. Tree deciduous, 7.5m tall. Bark smooth, light gray. Leaves scarlet (autumn color). Samara's blood red. Growing in open situation

479270 TO 479277-continued

- along a service road. Seed collected from one tree. Wild. Seed.
479272. JH-124-82. Japan. US National Arboretum. 51142. Collected September 22, 1982. Akkeshi Prefectural Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. 70m. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow 40cm per annum, deepest 1.3m. Minimum temperature -20C. Shrub, deciduous, large, 4.5-6m tall. Stems purplish, younger stems black. Leaves dark green above, lustrous beneath. Growing in a mixed woodland in field 41. Seed collected from one tree. Wild. Seed.
479273. JH-202-82. Japan. US National Arboretum. 51219. Collected September 28, 1982. Arboretum, Tokyo University, Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Trees 6m tall. Seed collected from 3 trees. Cultivated. Seed.
479274. JH-235-82. Japan. US National Arboretum. 51253. Collected October 01, 1982. Hokkaido University Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm per annum, ground freeze to 70cm. Minimum temperature -30C. Young stems black. Seed collected from one plant. Wild. Seed.
479275. JH-236-82. Japan. US National Arboretum. 51254. Collected October 01, 1982. Hokkaido University Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm per annum, ground freeze to 70cm. Minimum temperature -30C. Tree deciduous, 12m tall, erect, dense spreading crown. Twigs predominantly green, shiny. Leaves dull green above, lustrous beneath. Samaras green, wings lighter. Growing in woodland. Wild. Seed.
479276. JH-285-82. Japan. US National Arboretum. 51304. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 200m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Tree deciduous, small, 6m tall, erect, round-headed crown, greenish to blackish stems. Bark smooth, light gray. Leaves dull green above, somewhat lustrous beneath. Wings of samaras often pinkish. Growing on edge of woodland. Seed collected from one plant. Wild. Seed.
479277. JH-336-82. Japan. US National Arboretum. 51356. Collected October 09, 1982. Along Oirase, Yakeyama, Towada-machi, Aomori-ken, Honshu. 320m. Snow 2-3m per annum, 58 days covered by 50cm or deeper. Minimum temperature -20 C. Tree, deciduous, 6m tall, spreading

479270 TO 479277-continued

branches, twigs green. Leaves dark dull green above, somewhat lustrous beneath. Growing in woodland. Seed collected from one tree. Wild. Seed.

479278. *Acer sieboldianum* Miq. (Aceraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-263-82. Japan. US National Arboretum. 51284. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp. Sta., Kikyo-machi, Hakodate-shi. Lat. 41 deg. 19' N, Long. 140 deg. 48' E. Snow cover for 2 days by snow 50cm or deeper. Minimum temperature -18C. Tree 2.5m tall, multitrunked. Tree moved from Shiokubimisaki in Toimachi where it was native. Scions collected from one plant. Cultivated. Scionwood.

479279 TO 479281. *Acer tschonoskii* Maxim. (Aceraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479279. JH-46-82. Japan. US National Arboretum. 51064. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. Snow cover 1.5-2.5m per annum. Minimum temperature -35C. Shrub deciduous, 1.8-2.5m tall. Branches spreading. Leaves bright green above. Common in woodland, growing with Sasa. Seed collected from several plants. Wild. Seed.

479280. JH-211-82. Japan. US National Arboretum. 51234. Collected September 29, 1982. South slope of Mt. Dairoku, Furano-shi, Hokkaido. 1330-1400m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 2.5-3m tall, multistemmed from base, often gregarious. Bark smooth, light gray. Leaves turning reddish to yellowish. Growing in open woodland on steep mountain slopes. Seed collected from several plants. Wild. Seed.

479281. JH-353-82. Japan. US National Arboretum. 51372. Collected October 10, 1982. Arboretum, Mt. Hakkoda Bot. Lab., Tohoku Univ., Sukayu, Aomori-shi, Aomori-ken. Honshu. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Snow 2-3m per

479279 TO 479281-continued

annum, 58 days covered by 50cm or deeper. Seed collected from several plants. Wild. Seed.

479282. *Aconitum yezoense* Nakai (Ranunculaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-206-82. Japan. US National Arboretum. 51223. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Perennial, 1.2m tall, gregarious many stemmed from base, stems ascending. Leaves dull green above with impressed veins. Flowers erect, hood and 3 lower sepals purplish. Three plants collected. Cultivated. Plants.

479283. *Actaea erythrocarpa* Fisch. (Ranunculaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-72-82. Japan. US National Arboretum. 51091. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Herbaceous perennial, 60-90cm tall. Leaves bright green above. Fruit bright red. Growing in woodland along roadside in field no. 119. Seed collected from several plants. Herbaceous perennial. Wild. Seed.

479284 TO 479286. *Actinidia arguta* (Sieb. & Zucc.) Planch. ex Miq. (Actinidiaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479284. JH-61-82. Japan. US National Arboretum. 51080. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper

479284 TO 479286-continued

for 20 days. Minimum temperature -29C. Plant deciduous, woody climber, ascending to the tops of the tallest trees, 6-9m. Bark gray, peeling, becoming very shaggy on older stems. Leaves lustrous dark green above, lighter beneath. Fruit oblong 2.5cm long x 1.9cm wide, green to yellowish, sweet to taste. Abundant in woodland along road. Seed from several plants. Wild. Seed.

479285. JH-121-82. Japan. US National Arboretum. 51149. Collected September 22, 1982. Akkeshi Pref. Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Vine deciduous, scrambling, woody, 6-9m. Bark peeling in thin sheets. Leaves lustrous green above, lighter beneath, with reddish petioles. Scrambling over bushes and trees in woodland. Seed collected from one plant. Wild. Seed.

479286. JH-220-82. Japan. US National Arboretum. 51225. Collected September 29, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Vine deciduous, large woody climber of massive proportion, 6m tall. Bark peeling in long stripes. Leaves lustrous above with reddish petioles. Fruit greenish, becoming rather soft and sweet to taste. Growing in woodland adjacent to Arboretum. Seed collected from one plant. Wild. Seed.

479287 TO 479289. *Actinidia kolomikta* (Rupr. & Maxim.) Maxim.  
(Actinidiaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

479287. JH-65-82. Japan. US National Arboretum. 51084. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Vine woody climber over low bushes and trees, 4.6-6m tall. Leaves light green above. Fruit greenish, becoming soft, sweet to taste. Growing in mixed forest with *A. arguta*. Seed from several vines. Wild. Seed.

479288. JH-115-82. Japan. US National Arboretum. 51139. Collected September 22, 1982. Akkeshi Pref. Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. 70m. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Twiner deciduous, woody, 3-4.5m. Leaves dark green above,



479287 TO 479289-continued

impressed veins. Fruit greenish, soft when ripe, sweet to taste. Growing on edge of woodland in field 47. Wild. Seed.

479289. JH-227-82. Japan. US National Arboretum. 51243. Collected September 29, 1982. Maeyama, Furano-shi, Hokkaido. Snow cover 2.5m per annum. Minimum temperature -30C. Vine deciduous, climbing, twining, 3-4.5m tall. Leaves light green above, paler beneath, with pinkish petioles. Fruit greenish, soft, sweet to taste. Growing in woodland. Seed collected from one plant. Wild. Seed.

479290. *Actinidia polygama* (Sieb. & Zucc.) Maxim. (Actinidiaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-219-82. Japan. US National Arboretum. 51224. Collected September 29, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Vine deciduous, twining woody of massive proportions, 4.6-6m tall. Stem with pith. Bark rough, brown. Leaves light green. Fruit oblong, pointed on lower end, yellowish, insipid. Seed collected from one plant. Wild. Seed.

479291 TO 479292. *Aesculus turbinata* Bl. (Hippocastanaceae) Japanese horsechestnut.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479291. JH-186-82. Japan. US National Arboretum. 51203. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree deciduous, 12m tall. Branches spreading. Leaves dark green above, lighter beneath. Not native to area; seeds from mother plants came from the south. Seed collected from one tree 50 years old. Cultivated. Seed.

479292. JH-286-82. Japan. US National Arboretum. 51305. Collected October 06, 1982. Mori National Forest,

479291 TO 479292-continued

Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 200m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Tree deciduous, 21m tall. Branches ascending. Bark light gray, scaly. Leaves dark green above with impressed veins, pale beneath with raised veins. Fruit egg shaped, yellowish with speckled pericarp, nuts dark brown. Growing in woodland along forest road. Seed collected from one tree. Wild. Seed.

479293 TO 479295. *Alnus hirsuta* (Spach) Rupr. (Betulaceae) Manchurian alder.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479293. JH-133-82. Japan. US National Arboretum. 51157. Collected September 22, 1982. Akkeshi Pref. Forest, Bekambegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 6' N, Long. 145 deg. 0' N. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Tree deciduous, 6m tall. Branches spreading. Leaves lustrous deep green above, impressed veins, glaucous beneath. Growing in low swampy places in dense woodland. Wild. Seed.
479294. JH-198-82. Japan. US National Arboretum. 51215. Collected September 28, 1982. Arboretum. Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree deciduous, small, 6m tall. Leaves lustrous, green above, glaucous beneath. Seed collected from one tree. Collected as *A. inokuma*. Cultivated. Seed.
479295. JH-245-82. Japan. US National Arboretum. 51263. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm per annum, ground freeze to 70cm. Minimum temperature -30C. Tree deciduous, 7.6m tall. Branches spreading. Leaves bright green above with impressed veins, blue green beneath. Growing in woodland along roadside, common. Wild. Seed.

479296 TO 479298. *Alnus japonica* (Thunb.) Steud. (Betulaceae) Japanese alder.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development

479296 TO 479298-continued

Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479296. JH-137-82. Japan. US National Arboretum. 51160.  
Collected September 22, 1982. Osonai, Hamanaka-machi,  
Akkesbi-gun, Hokkaido. Lat. 43 deg. 09' N, Long. 145 deg.  
04' E. Snow cover 40cm per annum. Minimum temperature -  
20C. Tree deciduous, 6m tall. Branches upright, spreading.  
Bark rough, dark brown, peeling in plates. Leaves dark  
green, lustrous above, impressed veins lighter beneath.  
Growing as a hedge around a private house. Cultivated.  
Seed.
479297. JH-146-82. Japan. US National Arboretum. 51168.  
Collected September 23, 1982. East, 7km of Kushiro along  
hwy 44, Kushiro-shi, Hokkaido. Lat. 42 deg. 59' N, Long.  
144 deg. 27' E. Snow cover 50cm or deeper for 6 days.  
Minimum temperature -28C. Tree deciduous, 7.6-9.1m tall.  
Branches spreading, very brittle. Bark rough, light gray.  
Leaves deep green above, impressed. Growing in a marsh  
moor, open area; only tree in this habitat. Seed  
collected from 5 trees. Wild. Seed.
479298. Japan. US National Arboretum. 51419. Hokkaido (Federal)  
Forest Breeding Station, Hokkaido. Sent to US Arboretum  
by M. Kawase. Collected in Esashi-machi. Seed.

479299 TO 479301. *Alnus maximowiczii* Callier (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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479299. JH-100-82. Japan. US National Arboretum. 51122.  
Collected September 19, 1982. S of hwy 344, E of pass  
toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. Lat.  
44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per  
annum. Minimum temperature -20C. Shrub deciduous, 3.5-  
4.5m tall, much branched, spreading habit. Bark gray to  
brownish. Leaves dark green above, impressed veins,  
lighter beneath. Growing along a stream in open situation.  
Seed collected from several trees. Wild. Seed.
479300. JH-204-82. Japan. US National Arboretum. 51221.  
Collected September 28, 1982. Arboretum, Tokyo Univ.  
Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg.  
14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum.  
Minimum temperature -30C. Shrub 3.7m tall. Branches  
spreading, multistemmed from base. Bark smooth, light

479299 TO 479301-continued

gray. Leaves bright green above, pale beneath. Seed collected from 2 trees. Originally collected as *A. crispa*. Cultivated. Seed.

479301. JH-214-82. Japan. US National Arboretum. 51237. Collected September 29, 1982. South slope of Mt. Dairoku, Furano-shi, Hokkaido. 1100m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 2.5-3m tall, multitrunked from base. Buds dormant, nearly black, shiny. Leaves deep green above, with impressed veins, paler and rugose beneath. Growing in woodland. Seed collected from several plants. Wild. Seed.

479302. *Alnus pendula* Matsum. (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-302-82. Japan. US National Arboretum. 51321. Collected October 08, 1982. Suiiren Numa, Towada-shi, Aomori-ken, Honshu. 1005m. Lat. 40 deg. 37' N, Long. 140 deg. 53' E. Snow cover 2-3m; 58 days covered by 50cm or deeper. Minimum temperature -20C. Shrub low spreading, deciduous, 1.8m tall. Branches many, dark brown, shiny. Bark light gray. Leaves dark green above with strong impressed veins, lighter beneath with raised veins. Growing near pond. Seed collected from several plants. Wild. Seed.

479303. *Alnus* sp. (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F., March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-62-82. Japan. US National Arboretum. 51081. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, 19.8m tall. Bark greenish to brownish. Leaves bright green above, blue green beneath. Common in mixed woodland along forest road. Seed collected from large and small trees. Wild. Seed.

479304. *Arachniodes standishii* (T. Moore) Ohwi (Dryopteridaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-316-82. Japan. US National Arboretum. 51335. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Wild. Plants.

479305. *Aralia cordata* Thunb. (Araliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-2-82. Japan. US National Arboretum. 51021. Collected September 11, 1982. Togeshita near Rumoi-shi, Hokkaido. 342m. Lat. 43 deg. 53' N, Long. 141 deg. 47' E. Snow cover 50cm or more for 73 days. Minimum temperature -23C. Perennial large, coarse, to 2m tall. Stems solid, thick, green. Leaves dark green above, light green beneath. Fruit purplish-black on somewhat lax branches. Growing on open hillsides. Seed from several plants. Wild. Seed.

479306. *Arisaema serratum* f. *blumei* Makino (Araceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-239-82. Japan. US National Arboretum. 51257. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Perennial from a thick, fleshy tuber-like root, 45-60cm tall, stem and petioles brownish mottled. Leaves dark green above with impressed veins, pale beneath and glossy. Seeds surrounded by thick, fleshy, orange-red aril. Growing in open woodland near headquarters building. Wild. Plants.

479307 TO 479308. *Artemisia stelleriana* Besser (Asteraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;

479307 TO 479308-continued

March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479307. JH-282-82. Japan. US National Arboretum. 51278.  
Collected October 04, 1982. Seaside (road 36) Shiraoi-  
machi, Shiraoi-gun, Hokkaido. Lat. 42 deg. 32' N, Long.  
141 deg. 22' E. Perennial from woody caudex, short  
rhizome, 15-20cm tall. Leaves gray, thick. Growing in  
sandy area in dunes near sea. Wild. Plants.

479308. JH-300-82. Japan. US National Arboretum. 51279.  
Collected October 04, 1982. Seaside (road 36) Shiraoi-  
machi, Shiraoi-gun, Hokkaido. Lat. 42 deg. 32' N, Long.  
141 deg. 22' E. Perennial from woody caudex, short  
rhizome, 15-20cm tall. Leaves gray, thick. Growing in  
sandy area in dunes near sea. Wild. Seed.

479309. *Aster ageratoides* Turcz. (Asteraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-237-82. Japan. US National Arboretum. 51255.  
Collected October 01, 1982. Hokkaido Univ. Tomakomai-shi  
Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N,  
Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to  
70cm. Minimum temperature -30C. Perennial rhizomatous,  
45cm tall, gregarious, forms large colonies, erect.  
Leaves bright green above, pale beneath. Ray flowers  
lavender. Growing in open, sunny area near headquarters  
building parking lot, common. Wild. Plants.

479310. *Aster* sp. (Asteraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-223-82. Japan. US National Arboretum. 51245.  
Collected September 30, 1982. Yamate, Furano-shi,  
Hokkaido. Snow cover 2.5m per annum. Minimum temperature -  
30C. Perennial forming a clump, 60cm tall. Ray flowers  
dark lavender. Seen frequently in gardens. Growing in  
garden at Forest Service guest house. Cultivated. Plants.

479311 TO 479316. *Aucuba japonica* var. *borealis* Miyabe & Kudo  
(Cornaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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479311. JH-268-82. Japan. US National Arboretum. 51289.  
Collected October 05, 1982. Arboretum, Hokkaido Pref.  
Forest Exp. Sta., Kikyo-machi, Hakodate-shi. Hokkaido.  
Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for  
2 days by snow 50cm or deeper. Minimum temperature -18C.  
Collected from a male plant 1 m tall, moved from Kikonai-  
machi where it was native. Cultivated. Cuttings.
479312. JH-269-82. Japan. US National Arboretum. 51290.  
Collected October 05, 1982. Arboretum, Hokkaido Pref.  
Forest Exp. Sta., Kikyo-machi, Hakodate-shi. Hokkaido.  
Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for  
2 days by snow 50cm or deeper. Minimum temperature -18C.  
Collected from a female plant 1 m tall, moved from  
Kikonai-machi where it was native. Cultivated. Cuttings.
479313. JH-278-82. Japan. US National Arboretum. 51300.  
Collected October 05, 1982. Onuma, Nanae-machi, Kameda-  
gun, Hokkaido. Lat. 41 deg. 57' N, Long. 140 deg. 42' E.  
Snow cover for 2 days by 50cm or deeper. Minimum  
temperature -18C. Shrub evergreen, low, 60cm tall,  
spreading by underground runners. Leaves lustrous deep  
green above, paler beneath. Fruit turning red. Growing in  
woodland. Cuttings from female plant. Wild. Cuttings.
479314. JH-279-82. Japan. US National Arboretum. 51301.  
Collected October 05, 1982. Onuma, Nanae-machi, Kameda-  
gun, Hokkaido. Lat. 41 deg. 57' N, Long. 140 deg. 42' E.  
Snow cover for 2 days by 50cm or deeper. Minimum  
temperature -18C. Cuttings taken from one plant. Wild.  
Cuttings.
479315. JH-311-82. Japan. US National Arboretum. 51331.  
Collected October 08, 1982. Tsuta Numa, Towada-shi,  
Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg.  
58' E. Snow 2-3m; 58 days covered by 50cm or deeper.  
Minimum temperature -20C. Cuttings taken from a female  
plant. Wild. Cuttings.
479316. JH-328-82. Japan. US National Arboretum. 51347.  
Collected October 09, 1982. Along Kendo #1 hwy,  
Kansuizawa, Aomori-shi, Aomori-ken, Honshu. Lat. 40 deg.  
39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered  
by snow 50 cm or deeper. Minimum temperature -20C.  
Growing in woodland. Cuttings from female plants. Wild.

479311 TO 479316-continued  
Cuttings.

479317. *Betula apoiensis* Nakai (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-254-82. Japan. US National Arboretum. 51272. Collected October 03, 1982. Botanic Garden, Hokkaido Univ., Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg. 22' E. Snow cover for 55 days 50cm or deeper. Minimum temperature -24C. Shrub deciduous, 1 m tall. Leaves lustrous, dark green above, pale beneath. Fruiting aments erect. Cultivated. Seed.

479318 TO 479322. *Betula ermanii* Cham. (Betulaceae) Birch.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

479318. JH-28-82. Japan. US National Arboretum. 51049. Collected September 14, 1982. Kasai Area, Hokkaido Univ., Teshio Forest, Kam itoikanbetsu, Horonob-cho. 125m. Teshio-gun, Hokkaido. Tree deciduous, 18.4m tall, 70cm, densely branched. Bark grayish to silvery. Leaves bright green above. Fruit erect. Growing in woodland with *Abies sachalinensis*, *Sasa*, *Vitis*, *Picea glehnii*. Seed from several trees. Wild. Seed.

479319. JH-50-82. Japan. US National Arboretum. 51068. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. Snow 1.5-2.5m per annum. Minimum temperature -35C. Tree deciduous, 19.9m tall. Twigs dark brown. Bark light gray, very rough in old trees. Leaves dark green above, lighter beneath, veins impressed above. Abundant in woodland, growing with *Acer*, *Picea* by field marker 320. Seed from single tree. Wild. Seed.

479320. JH-92-82. Japan. US National Arboretum. 51114. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Tree deciduous, reddish brown, shiny twigs, 7.5m tall. Bark grayish to whitish,



479318 TO 479322-continued

peeling in thick rough plates. Leaves dark green above. Fruit erect on branches. Extremely common, the dominant deciduous tree of the area. Growing on open hillside with Acer under dense Pinus pumila and Sasa. Seed collected from several trees. Wild. Seed.

479321. JH-130-82. Japan. US National Arboretum. 51154. Collected September 22, 1982. Akkeshi Pref. Forest, Bekambegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 06' N, Long. 145 deg. 0' N. Snow cover 40cm deepest 1.3m. Minimum temperature -20C. Tree deciduous, 18-21m tall. Bark grayish white with metallic sheen. Leaves lustrous deep green above, yellowish green beneath. Aments erect. Very common in woodland. Seed collected from 2 plants. Wild. Seed.

479322. JH-346-82. Japan. US National Arboretum. 51365. Collected October 10, 1982. Mt. Tamoyachidake, Rt 1, Aomori-shi, Aomori-ken, Honshu. 1324m. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Tree deciduous, 4.5m tall, gnarled. Branches dark brown, lustrous. Bark tan to whitish, glossy, peeling in thin strips. Fruit erect. Common mixed with Tsuga and Abies. Seed collected from 2 plants. Wild. Seed.

479323 TO 479325. Betula maximowicziana Regel (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479323. JH-32-82. Japan. US National Arboretum. 51052. Collected September 14, 1982. Hokkaido Univ., Teshio Forest, Toikanbetsu, Horonobe-cho, Teshio-gun, Hokkaido. Lat. 44 deg. 53' N, Long. 141 deg. 55' E. Snow cover 1-2m per annum. Minimum temperature -17C. Seeds collected in forest and presented to group. Wild. Seed.

479324. JH-152-82. Japan. US National Arboretum. 51174. Collected September 24, 1982. W side of Lake Kusharo, Urankoshi, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 34' N, Long. 144 deg. 19' E. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, 20m tall. Branches wide spreading. Bark smooth, gray, rough at base of trunk. Leaves dull, light green above, impressed veins, lighter beneath, petioles light green. Fruiting aments pendulous. Very common in forest. Wild. Seed.

479325. JH-168-82. Japan. US National Arboretum. 51190. Collected September 25, 1982. Teshikaga-machi, Kawakami-

479323 TO 479325-continued

gun, Hokkaido. Snow cover 60cm per annum. Minimum temperature -25C. Tree up to 12m tall. Growing on NE beach of Lake Kusharo. Wild. Seed.

479326 TO 479327. *Betula platyphylla* var. *japonica* (Miq.) Hara (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479326. JH-52-82. Japan. US National Arboretum. 51070. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokarai-cho, Uryu-gun, Hokkaido. Snow cover 1.5-2.5m per annum. Minimum temperature -35C. Tree deciduous, 20m tall. Branch ends pendulous. Bark nearly smooth, white. Leaves lustrous, dark green above. Common in woodland, growing with *Sasa* by field marker 320. Seed collected from one tree. Wild. Seed.

479327. Japan. US National Arboretum. 51421. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US National Arboretum by M. Kawase. Collected in Kagura, Asahikawa-shi. Seed.

479328. *Betula tatewakiana* M. Ohki & S. Watanabe (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-253-82. Japan. US National Arboretum. 51271. Collected October 03, 1982. Botanic Garden, Hokkaido Univ., Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg. 22' E. Snow cover 50cm or deeper for 55 days. Minimum temperature -24C. Shrub deciduous, 2.7m tall, branched from base. Leaves grayish green above, light green beneath. Seed collected from one plant. Cultivated. Seed.

479329. *Buckleya lanceolata* (Sieb. & Zucc.) Miq. (Santalaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

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JH-393-82. Japan. US National Arboretum. 51410.  
Collected October 15, 1982. Mt Idzura, near shrine of  
Idzura-Kam-non-Son, Tochigi-shi, Tochigi-ken, Honshu. 300m.  
Shrub 3m tall. Branches slender, somewhat lax of habit  
with green twigs. Bark light gray, somewhat spongy, inner  
bark bright green. Leaves bright green. Fruit green  
including the wings. Growing in mixed woodland, parasitic  
on *Abies firma*. Wild. Seed.

479330. *Calanthe torifera* Schltr. (Orchidaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

JH-397-82. Japan. US National Arboretum. 51267.  
Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp.  
Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long.  
141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm.  
Minimum temperature -30C. Wild. Plants.

479331. *Callicarpa japonica* Thunb. (Verbenaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

JH-262-82. Japan. US National Arboretum. 51283.  
Collected October 05, 1982. Arboretum, Hokkaido Pref.  
Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat.  
41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2  
days by snow 50cm or deeper. Minimum temperature -18C.  
Shrub 3m tall. Seed collected from one plant moved from  
wilderness. Cultivated. Seed.

479332 TO 479333. *Carex* sp. (Cyperaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

479332. JH-205-82. Japan. US National Arboretum. 51222.  
Collected September 28, 1982. Arboretum, Tokyo Univ.

479332 TO 479333-continued

Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Several plants collected. Cultivated. Plants.

479333. JH-229-82. Japan. US National Arboretum. 51247. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm. Ground freeze to 70cm. Minimum temperature -30C. Wild. Plants.

479334 TO 479340. *Carpinus cordata* El. (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479334. JH-77-82. Japan. US National Arboretum. 51096. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Tree deciduous, up to 11m tall. Bark smooth, light gray. Leaves dull bright green above. Fruiting catkins pendulous, green. Growing in dense woodland on steep mountain slope, with trees similar to JH-75. Seed collected from 2 trees. Wild. Seed.
479335. JH-145-82. Japan. US National Arboretum. 51167. Collected September 23, 1982. East, 7km of Kushiro along hwy 44, Kushiro-shi, Hokkaido. Lat. 42 deg. 59' N, Long. 144 deg. 27' E. Snow cover 50cm or deeper for 6 days. Minimum temperature -28C. Shrub deciduous, large to small tree, 6m tall. Leaves dark green above, impressed veins, glaucous green beneath. Fruiting aments pendulous. Growing in woodland. Seed collected from 2 plants. Wild. Seed.
479336. JH-148-82. Japan. US National Arboretum. 51170. Collected September 24, 1982. SE, 3.2km of Lake Kusharo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 35' N, Long. 144 deg. 23' E. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, 10m tall. Bark smooth, gray. Leaves light green above, impressed veins, lighter beneath. Fruiting aments pendulous. Growing in woodland. Seed collected from one tree. Wild. Seed.
479337. JH-242-82. Japan. US National Arboretum. 51260. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm.

479334 TO 479340-continued

Minimum temperature -30C. Tree deciduous, small, with ascending branches, 7.6m tall, broad headed crown. Bark tight, light gray. Twigs brown, lustrous. Leaves dull dark green above with impressed veins, veins prominent beneath. Fruiting aments pendulous, yellowish green. Growing in woodland. Wild. Seed.

479338. JH-275-82. Japan. US National Arboretum. 51297. Collected October 05, 1982. Onuma, Nanae-machi, Kameda-gun, Hokkaido. Lat. 41 deg. 57' N, Long. 140 deg. 42' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Tree deciduous, 7.6m tall, spreading crown, dark brown shiny branches. Bark tight, smooth, gray. Leaves dark green above with impressed veins, paler beneath. Fruiting aments pendulous, yellowish green. Seed collected from several plants. Wild. Seed.

479339. JH-335-82. Japan. US National Arboretum. 51355. Collected October 09, 1982. Along Oirase, Yakeyama, Towada-machi, Aomori-ken, Honshu. 320m. Snow 2-3m, 58 days covered by 50cm or deeper. Minimum temperature -20C. Tree deciduous, 8m tall. Branches wide spreading. Bark smooth, gray. Leaves with impressed veins above, raised veins beneath. Fruiting aments pendulous. Growing in woodland along river. Seed collected from 3 plants. Wild. Seed.

479340. JH-395-82. Japan. US National Arboretum. 51413. Collected October 15, 1982. Foot of Mt Nyokoo, near Zyakko Falls, Nikko, Tochigi-ken, Honshu. 1050m. Tree deciduous, 7.5m tall. Bark smooth, dark brown. Leaves dark green above with impressed veins, glaucous beneath. Growing in woodland. Wild. Seed.

479341 TO 479342. *Carpinus laxiflora* (Siebold & Zucc.) Blume  
(Betulaceae) Hornbeam.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479341. JH-243-82. Japan. US National Arboretum. 51261. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Tree deciduous, 18.5m tall, erect with strongly ascending branches. Leaves dark green above, lighter and somewhat lustrous beneath. Growing in woodland near Hokkaido expressway. Wild. Seed.

479341 TO 479342-continued

479342. JH-298-82. Japan. US National Arboretum. 51320.  
Collected October 06, 1982. Near Lake Onuma, Onuma, Nanae-  
cho, Kameda-gun, Hokkaido. Lat. 41 deg. 59' N, Long. 140  
deg. 43' E. Snow cover 2 days by 50cm or deeper. Minimum  
temperature -18C. Tree deciduous, 7.6m tall. Branches  
wide spreading. Leaves dark green above with impressed  
veins, somewhat lustrous beneath. Fruiting aments  
pendulous, green. Growing in open woodland. Seed  
collected from one plant. Wild. Seed.

479343. *Castanopsis cuspidata* (Thunb.) Schottky (Fagaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
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JH-392-82. Japan. US National Arboretum. 51414.  
Collected October 13, 1982. Near 1864 Minogawa-joonai-  
machi, Tochigi-shi, Tochigi-ken, Honshu. Tree evergreen,  
dense habit and broad crown. Bark smooth, gray. Growing  
in garden near Mr. M. Furuse's house. Cultivated. Seed.

479344. *Cephalotaxus harringtonia* var. *nana* (Nakai) Rehd. (Taxaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
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JH-201-82. Japan. US National Arboretum. 51218.  
Collected September 28, 1982. Arboretum, Tokyo Univ.  
Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg.  
14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum.  
Minimum temperature -30C. Shrub evergreen, 1.2m tall.  
Branches spreading. Leaves lustrous green above, whitish  
beneath. Fruit greenish (immature). Seed collected from  
several plants. Cultivated. Seed.

479345. *Cercidiphyllum japonicum* Sieb. & Zucc. (Cercidiphyllaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

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JH-126-82. Japan. US National Arboretum. 51151.  
Collected September 22, 1982. Akkeshi Prefectural Forest,  
Bekambegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43  
deg. 06' N, Long. 145 deg. 0' N. Snow cover 40cm, deepest  
1.3m. Minimum temperature -20C. Tree deciduous, 15m tall,  
usually multitrunked. Bark furrowed, light gray, peeling  
in strips. Leaves bright green above, glaucous beneath.  
Common in mixed deciduous woodland. Seed collected from  
one tree. Wild. Seed.

479346. *Chaenomeles japonica* (Thunb.) Lindl. ex Spach (Rosaceae)  
Flowering quince.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

JH-360-82. Japan. US National Arboretum. 51379.  
Collected October 12, 1982. Kairyo-en, Angyo, Kawaguchi,  
Saitama-ken, Central Honshu. Flowers orange. Plants  
purchased. Received as var. *alpina*. Cultivated. Plants.

479347. *Chaenomeles japonica* f. *alba* (Nak.) Ohwi (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

JH-359-82. Japan. US National Arboretum. 51378.  
Collected October 12, 1982. Kairyo-en, Angyo, Kawaguchi,  
Saitama-ken, Central Honshu. Flowers white. Plants  
purchased. Cultivated. Plants.

479348. *Chimonanthus praecox* (L.) Link (Calycanthaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

JH-361-82. Japan. US National Arboretum. 51380.  
Collected October 12, 1982. Kairyo-en, Angyo, Kawaguchi,  
Saitama-ken, Central Honshu. Plants purchased. Local name  
*Dai-oga* (Large Yellow River). Cultivated. Plants.

479349. *Chloranthus serratus* (Thunb.) Roem. & Schult. (Chloranthaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;

479349-continued

March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-234-82. Japan. US National Arboretum. 51252. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Wild. Plants.

479350. *Chrysanthemum pacificum* Nakai (Asteraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-378-82. Japan. US National Arboretum. 51397. Collected October 12, 1982. Kogara Co-operative Nursery, Bonsai Center, Angyo, Saitama-ken, Central Honshu. Attractive selection with hairy margin on upper edge of leaf. Plant purchased. Local name Iso Giku. Cultivated. Plants.

479351. *Chrysanthemum* sp. (Asteraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-173-82. Japan. US National Arboretum. 51136. Collected September 22, 1982. Kujirano-hama, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 42 deg. 59' N, Long. 145 deg. 0' E. Snow cover 40cm per annum, deepest 1.3m. Minimum temperature -20C. Growing in sea-side meadow. Wild. Plants.

479352. *Cimicifuga simplex* Wormsk. (Ranunculaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-136-82. Japan. US National Arboretum. 51144.



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Collected September 22, 1982. Akkeshi Prefectural Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. 650m. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Perennial from short rhizome, 0.76-1.5m tall. Leaves light green above, glaucous beneath. Inflorescence sometimes arching, flowers white. Common in mixed woodland, in field 41. Several plants collected. Wild. Plants.

479353. *Clethra barbinervis* Sieb. & Zucc. (Clethraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-261-82. Japan. US National Arboretum. 51282. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2 days by snow 50cm or deeper. Minimum temperature -18C. Tree, 3m tall, transplanted from Gabino-machi in Hakodate-shi where it was native. Seed collected from one plant. Cultivated. Seed.

479354. *Clinopodium chinense* var. *shibetchense* (Lev.) Koidz. (Lamiaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-331-82. Japan. US National Arboretum. 51350. Collected October 1982. Along Kendo #1 Hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow cover 2-3m, 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Rhizomatous perennial, 13-15cm tall. Growing in a sunny, rocky bank on roadway. Wild. Plants.

479355. *Codonopsis lanceolata* (Sieb. & Zucc.) Trautv. (Campanulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479355-continued

JH-248-82. Japan. US National Arboretum. 51266. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Perennial vine climbing over bushes in woodland, 1.2-1.5m tall. Leaves dark green above with impressed veins, pale beneath with prominent veins. Calyx turning purplish, reflexed. Wild. Seed.

479356. *Convallaria keiskei* Miq. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-15-82. Japan. US National Arboretum. 51033. Collected September 12, 1982. Sarobetsu Moor, Wakasakanai, Toyotomimachi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Growing in woodland under *Quercus mongolica* between highway and pasture. Several plants collected. Wild. Plants.

479357 TO 479358. *Cornus controversa* Hemsl. (Cornaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

479357. JH-59-82. Japan. US National Arboretum. 51078. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, 6.1m tall. Branches tiered. Bark smooth, light gray. Leaves bright green above, silvery beneath. Fruit dark purplish black. Growing in woodland along roadside with *Ulmus* and *Morus*, in field no. 122. Seed from 2 trees. Wild. Seed.

479358. JH-85-82. Japan. US National Arboretum. 51104. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 200m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Shrub deciduous, 12m tall. Branches tiered, dark brown. Bark nearly smooth, light gray. Leaves dark green above, glaucous beneath. Fruit nearly black but actually purple. Growing along rocky stream bank with *Ulmus*, *Quercus*,

479357 TO 479358-continued

*Betula*, *Cornus*, *Sorbus*, yew, *Cercis*, *Abies*, and *Juglans*.  
Seed collected from a single tree. Wild. Seed.

479359. *Cornus kousa* Hance (Cornaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

JH-385-82. Japan. US National Arboretum. 51404.  
Collected October 12, 1982. Funatsu-en, Akashiba,  
Kawaguch, Saitama-ken, Central Honshu. Leaves with a deep  
yellow blotch in middle. Plant purchased. Cultivated.  
Plants.

479360. *Corylus sieboldiana* Bl. (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

JH-4-82. Japan. US National Arboretum. 51023. Collected  
September 11, 1982. Togeshita near Rumoi-shi, Hokkaido.  
342m. Lat. 43 deg. 53' N, Long. 141 deg. 47' E. Snow  
cover 50cm or more for 73 days. Minimum temperature -23C.  
Shrub 1.2-2.5m, multitrunked from base, spreading habit,  
dense. Bark smooth, light gray. Leaves dark green above,  
light green beneath. Growing at edge of open woodland on  
hillside. Seed from 2 plants. Wild. Seed.

479361. *Crataegus chlorosarca* Maxim. (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.  
Received February 1983.

JH-195-82. Japan. US National Arboretum. 51212.  
Collected September 28, 1982. Arboretum, Tokyo Univ.  
Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg.  
14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum.  
Minimum temperature -30C. Trees 7-8m tall. Seed collected  
from 2 trees. Cultivated. Seed.

479362. *Crataegus* sp. (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-258-82. Japan. US National Arboretum. 51276.  
Collected October 03, 1982. Botanic Garden, Hokkaido Univ., Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg. 22' E. Snow cover 50cm or deeper for 55 days. Minimum temperature -24C. Tree deciduous, small, 6m tall. Branches spreading, thorny, smooth, light gray. Bark rough, peeling, light gray. Leaves dark green above, pale beneath. Fruit firm, orange-red to red, oblong. Seed collected from one tree. Cultivated. Seed.

479363. *Cymbidium virescens* Lindl. (Orchidaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-368-82. Japan. US National Arboretum. 51387.  
Collected October 12, 1982. Nihonkaki Corp., 184 Tshigami, Kawaguchi, Saitama-ken, Central Honshu. Plants donated. Cultivated. Plants.

479364. *Daphne kantschatica* var. *jezoensis* (Maxim.) Ohwi (Thymelaeaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-358-82. Japan. US National Arboretum. 51377.  
Collected October 12, 1982. Kairyo-en, Angyo, Kawaguchi, Saitama-ken, Central Honshu. Plants purchased. Cultivated. Plants.

479365. *Daphniphyllum macropodum* Mig. (Daphniphyllaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

479365-continued

Received February 1983.

JH-383-82. Japan. US National Arboretum. 51402. Collected October 12, 1982. Funatsu-en, Akashiba, Kawaguchi, Saitama-ken, Central Honshu. Leaves variously yellow variegated. Plant purchased. Cultivated. Plants.

479366 TO 479369. *Daphniphyllum macropodum* var. *humile* (Maxim.) Rosenth. (Daphniphyllaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479366. JH-88-82. Japan. US National Arboretum. 51107. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 200m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow cover 2m per annum. Evergreen, low shrub, 1 m tall, gregarious. Leaves lustrous green above, glaucous green beneath. Fruit purple. Growing in semi-open place in woodland with *Ulmus*, *Quercus*, *Cornus*, *Sorbus*, yew, *Cercis*, *Abies*, and *Juglans*. Wild. Seed.

479367. JH-265-82. Japan. US National Arboretum. 51286. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover 50cm or deeper for 2 days. Minimum temperature -18C. Cuttings collected from 1 m tall plant moved from Kikonai-machi where it was native. Cultivated. Cuttings.

479368. JH-315-82. Japan. US National Arboretum. 51323. Collected October 08, 1982. Tsuta Onsen, Towada-shi, Aomori-ken, Honshu. 470m. Snow cover 2-3m, 58 days 50cm or deeper. Minimum temperature -20C. Shrub evergreen, low, 60-90cm tall, growing from underground runners. Leaves lustrous above, blue green beneath. Fruit purple. Growing in deep woodland under *Fagus crenata*. Cuttings obtained from male plants. Wild. Cuttings.

479369. JH-314-82. Japan. US National Arboretum. 51334. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow cover 2-3m, 58 days 50cm or deeper. Cuttings collected from a male plant. Wild. Cuttings.

479370 TO 479371. *Dianthus superbus* L. (Caryophyllaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;

479370 TO 479371-continued

March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479370. JH-16-82. Japan. US National Arboretum. 51035. Collected  
September 14, 1982. Wakasakanai, Toyotomi-machi, Teshio-  
gun, Hokkaido. Lat. 45 deg. 04' N, Long. 141 deg. 35' E.  
Perennial densely tufted, multistemmed from base, makes a  
loose spreading mat 40-65cm high. Leaves somewhat  
glaucous. Flowers deep-rose purple. Seed from several  
plants in high sand dune above sea. Wild. Seed.

479371. JH-330-82. Japan. US National Arboretum. 51349.  
Collected October 09, 1982. Along Kendo #1 Hwy,  
Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40  
deg. 39' N, Long. 140 deg. 50' E. Snow cover 2-3m, 58  
days covered by snow 50cm or deeper. Minimum temperature -  
20C. Seed collected from one plant growing in sunny  
roadside. Wild. Seed.

479372 TO 479373. *Diospyros lotus* L. (Ebenaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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479372. JH-257-82. Japan. US National Arboretum. 51275.  
Collected October 03, 1982. Botanic Garden, Hokkaido Univ.,  
Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg.  
22' E. Snow cover for 55 days 50cm or deeper. Minimum  
temperature -24C. Tree deciduous, 6m tall, several trunks  
from base. Leaves lustrous above, pale beneath. Fruit  
glaucous, turning yellowish. Seed collected from one tree.  
Cultivated. Seed.

479373. JH-357-82. Japan. US National Arboretum. 51376.  
Collected October 12, 1982. Kairyo-en, Angyo, Kawaguchi,  
Saitama-ken, Central Honshu. Plants purchased. Cultivated.  
Plants.

479374. *Dryopteris crassirhizoma* Nakai (Dryopteridaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479374-continued

JH-317-82. Japan. US National Arboretum. 51336.  
Collected October 08, 1982. Tsuta Numa, Towada-shi,  
Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg.  
58' E. Snow 2-3m, 58 days covered by 50cm or deeper.  
Minimum temperature -20C. Wild. Plants.

479375. *Edgeworthia chrysantha* Lindl. (Thymelaeaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-371-82. Japan. US National Arboretum. 51390.  
Collected October 12, 1982. Nihonkaki Corp., 184  
Tshigami, Kawaguchi, Saitama-ken, Central Honshu. Flowers  
orange. Plants donated. Cultivated. Plants.

479376. *Eleutherococcus senticosus* (Rupr. & Maxim.) Maxim.  
(Araliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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JH-158-82. Japan. US National Arboretum. 51180.  
Collected September 24, 1982. W side of Lake Kusharo,  
Urakoshi, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat.  
43 deg. 34' N, Long. 144 deg. 19' E. Snow cover 60cm per  
annum. Minimum temperature -25C. Shrub deciduous, 1.5-  
1.8m tall, mostly unbranched, with retrorse prickles on  
stems. Leaves lustrous dark green above, light green  
beneath. Fruit in a globose head, nearly black. Growing  
in woodland, recently cutover, along forest road on  
slopes above the lake. Seed collected from several plants.  
Received as *Acanthopanax senticosus*. Wild. Seed.

479377 TO 479378. *Enkianthus campanulatus* (Miquel) Nicholson  
(Ericaceae) Redvein *enkianthus*.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479377. JH-252-82. Japan. US National Arboretum. 51270.  
Collected October 03, 1982. Botanic Garden, Hokkaido Univ.,  
Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg.  
22' E. Snow cover for 55 days 50cm or deeper. Minimum

479377 TO 479378-continued

temperature -24C. Shrub deciduous, 3m tall, multistemmed. Leaves dark green above, pale beneath. Seed collected from one plant with large leaves and pink flowers. Cultivated. Seed.

479378. JH-272-82. Japan. US National Arboretum. 51294. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2 days by snow 50cm or deeper. Minimum temperature -18C. Tree 2m tall. Pedicels long. Seed collected from plant moved from Kobui in Shirkishinai-machi. Cultivated. Seed.

479379. *Enkianthus perulatus* (Miq.) C. K. Schn. (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-377-82. Japan. US National Arboretum. 51396. Collected October 12, 1982. Kogara Co-operative Nursery, Bonsai Cen., Angyo, Saitama-ken, Central Honshu. Dwarf form. Fall foliage green and red. Local name Tsukumododan. Plants purchased. Cultivated. Plants.

479380. *Epimedium* sp. (Berberidaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-301-82. Japan. US National Arboretum. 51314. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 350m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Wild. Plants.

479381. *Euonymus alatus* f. *subtriflorus* (Bl.) Ohwi (Celastraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-47-82. Japan. US National Arboretum. 51065. Collected



479381-continued

September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. Snow cover 1.5-2.5m per annum. Minimum temperature -35C. Shrub deciduous, 1.2-1.5m, much branched, multistemmed from base. Leaves bright green. In mixed woodland with *Kalopanax*, *Quercus*, & *Sasa* by field marker 320. Seed from several plants. Wild. Seed.

479382 TO 479383. *Euonymus fortunei* var. *radicans* (Sieb. ex Miq.) Rehd. (Celastraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479382. JH-232-82. Japan. US National Arboretum. 51250. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Creeper evergreen, climbing on dead tree trunk, 4.5-6m tall, with holdfast roots on juvenile stems, mature branches 60-90cm long. Growing in woodland. Wild. Cuttings.

479383. JH-333-82. Japan. US National Arboretum. 51353. Collected October 09, 1982. Yunotai, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 37' N, Long. 140 deg. 58' E. Minimum temperature -20C. Growing in open field. Cuttings taken from one plant. Wild. Cuttings.

479384 TO 479388. *Euonymus macroptera* Rupr. (Celastraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479384. JH-22-82. Japan. US National Arboretum. 51041. Collected September 14, 1982. Dune Forest, Wakaisakanai, Toyotomimachi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Shrub deciduous, to 2m tall. Leaves light green above, rugose beneath, buds bright green. Fruit on pendulous peduncles, wings crimson. Mixed woodland growing with JH-20-82. Seed from several plants. Wild. Seed.

479385. JH-58-82. Japan. US National Arboretum. 51076. Collected September 17, 1982. Abashiri National Forest, Urbar,

479384 TO 479388-continued

Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Shrub deciduous, 4m tall, spreading habit with long pointed green buds. Leaves dark green above, light green beneath. Growing in woodland along roadside in field no. 122. Wild. Seed.

479386. JH-99-82. Japan. US National Arboretum. 51121. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Growing in open woodland in sunny situation. Seed collected from several plants. Wild. Seed.

479387. JH-155-82. Japan. US National Arboretum. 51177. Collected September 24, 1982. W side of Lake Kusharo, Urankoshi, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 34' N, Long. 144 deg. 19' E. Snow cover 60cm per annum. Minimum temperature -25C. Shrub deciduous, 4m tall. Branches wide spreading, open. Leaves bright green above, light green beneath. Fruit deep red with brown wings, seeds with orange aril. Seed collected from 4 trees. Wild. Seed.

479388. JH-191-82. Japan. US National Arboretum. 51208. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 3m tall. Leaves light green above, lighter beneath. Fruit strongly winged, red, the seeds with an orange aril. Seed collected from one tree. Cultivated. Seed.

479389. *Euonymus melanantha* Fr. & Sav. (Celastraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-313-82. Japan. US National Arboretum. 51333. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow cover 2-3m, 58 days 50cm or deeper. Minimum temperature -20C. Shrub deciduous, low, 1 m tall. Stems erect, green, little branched. Leaves light green above with impressed veins, pale beneath. Fruit deep pink. Seeds orange, arillate. Growing in deep woodland predominately of *Fagus crenata*. Cuttings taken from several plants. Wild. Cuttings.

479390 TO 479391. *Euonymus oxyphylla* Miq. (Celastraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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479390. JH-5-82. US National Arboretum. 51024. Collected  
September 11, 1982. Togeshita near Rumoi-shi, Hokkaido.  
342m. Lat. 43 deg. 53' N, Long. 141 deg. 47' E. Snow  
cover 50cm or more for 73 days. Minimum temperature -23C.  
Shrub deciduous, to 3m tall. Branches many. Twigs green.  
Leaves light green. Fruit round. Growing at edge of open  
woodland on hillside. Seed from one tree. Wild. Seed.

479391. JH-190-82. US National Arboretum. 51207. Collected  
September 28, 1982. Arboretum, Tokyo Univ. Furano Forest,  
Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long.  
142 deg. 24' E. Snow cover 2.5m per annum. Minimum  
temperature -30C. Tree deciduous, small, 5m tall.  
Branches wide spreading, light green above, pale beneath.  
Fruit essentially globose, red. Seeds with orange aril.  
Seed collected from one tree. Cultivated. Seed.

479392 TO 479395. *Euonymus planipes* (Koehne) Koehne (Celastraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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479392. JH-83-82. Japan. US National Arboretum. 51102. Collected  
September 18, 1982. Shari National Forest, Utoro, Shari-  
machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N,  
Long. 145 deg. 0' E. Snow fall 2m per annum. Growing with  
trees similar to JH-75. Seed collected from several  
plants. Wild. Seed.

479393. JH-134-82. Japan. US National Arboretum. 51159.  
Collected September 22, 1982. Akkeshi Prefectural Forest,  
Kitanosawa, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 42  
deg. 59' N, Long. 144 deg. 27' E. Snow cover 40cm,  
deepest 1.3m. Minimum temperature -20C. Shrub deciduous,  
1.8-2.1m. Branches upright, spreading. Twigs green,  
turning brown the second year. Leaves light green above,  
lighter beneath. Buds green. Growing in woodland. Seed  
collected from 3 plants. Wild. Seed.

479394. JH-150-82. Japan. US National Arboretum. 51172.  
Collected September 24, 1982. SE, 3.2km of Lake Kusharo,  
Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 35'

479392 TO 479395-continued

N, Long. 144 deg. 23' E. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, small, 5m tall. Branches spreading. Bark smooth, gray. Leaves dark green above, lighter beneath. Fruit purplish red. Seeds embedded in orange aril. Growing along a stream in mixed wood. Seed collected from 3 plants. Wild. Seed.

479395. JH-189-82. Japan. US National Arboretum. 51206. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree deciduous, small, 5m tall. Branches spreading, open habit, multistemmed. Bark smooth, light gray. Leaves light green above, pale beneath. Fruit red, slightly winged, seeds with orange aril. Seed collected from one tree. Cultivated. Seed.

479396 TO 479401. *Euonymus sieboldiana* Blume (Celastraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479396. JH-35-82. Japan. US National Arboretum. 51055. Collected September 15, 1982. Arboretum, Teshio Forest, Toikanbetsu, Honorobe-cho, Teshio-gun, Hokkaido. Lat. 44 deg. 53' N. Long. 141 deg. 55' E. Snow 1-2 per annum. Minimum temperature -17C. Shrub deciduous, 3m wide, 2m tall. Branches open. Fruits rose pink. Plant introduced from wild. Cultivated. Seed.

479397. JH-116-82. Japan. US National Arboretum. 51140. Collected September 22, 1982. Akkeshi Pref. Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. 70m. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Shrub deciduous, 1.8-2.1m tall. Branches many, spreading habit. Twigs green, the second year becoming brown. Leaves dark green above, lighter beneath. Fruit rose pink. Growing in woodland in field 47. Seed collected from several plants. Wild. Seed.

479398. JH-246-82. Japan. US National Arboretum. 51264. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Shrub deciduous, 1.8-2.5m tall, multistemmed from base, forming a spreading crown. Bark smooth, light gray. Leaves dark green above, paler beneath. Fruit variable in color, often rose-reddish.

479396 TO 479401-continued

Growing in open swampy area. Wild. Seed.

479399. JH-362-82. 'New Scarlet Ball'. Japan. US National Arboretum. 51381. Collected October 12, 1982. Kairyo-en, Angyo, Kawaguchi, Saitama-ken, Central Honshu. Plants purchased. Local name Hi-dama. Cultivated. Plants.

479400. JH-363-83. 'Scarlet Ball'. Japan. US National Arboretum. 51382. Collected October 12, 1982. Kairyo-en, Angyo, Kawaguchi, Saitama-ken, Central Honshu. Plants purchased. Local name Hi-dama. Cultivated. Plants.

479401. JH-372-82. Japan. US National Arboretum. 51398. Collected October 12, 1982. Kogara Cooperative Nursery, Bonsai Center, Angyo, Saitama-ken, Central Honshu. Fruit white. Plants purchased. Cultivated. Plants.

479402. *Euscaphis japonica* (Thunb.) Kanitz (Staphyleaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-394-82. Japan. US National Arboretum. 51415. Collected October 13, 1982. 1864 Minogawa-joonai-machi, Tochigi-ski, Tochigi-ken, Honshu. Shrub deciduous, 4.5m tall. Leaves bright green. Fruit bright red with black seeds. Growing at small shrine across the road from Mr. M. Furuse's house. Cultivated. Seed.

479403 TO 479404. *Fagus crenata* Blume (Fagaceae) Beech.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479403. JH-276-82. Japan. US National Arboretum. 51298. Collected October 05, 1982. Onuma, Nanae-machi, Kametani-gun, Hokkaido. Lat. 41 deg. 57' N, Long. 140 deg. 42' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Tree deciduous, 20m tall. Branches wide spreading, light gray. Buds brown. Bark tight, smooth, gray. Leaves dull dark green above with impressed veins, subcoriaceous, pale green beneath. Common in woodland. Seed collected from several plants. Wild. Seed.

479404. JH-289-82. Japan. US National Arboretum. 51308.

479403 TO 479404-continued

Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 350m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Seedlings germinating under a mature tree. Growing in woodland. Wild. Plants.

479405. *Fagus japonica* Maxim. (Fagaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-396-82. Japan. US National Arboretum. 51411. Collected October 14, 1982. Mt Idzura, near shrine of Idzura-Kam-non-Son, Tochigi-shi, Tochigi-ken, Honshu. 900m. Tree deciduous, 18.5m tall. Branches wide spreading, stump sprouting, twigs lustrous dark brown. Bark warty, light gray. Leaves dark green above, glaucous beneath. Growing in mixed woodland. Wild. Seed.

479406. *Festuca* sp. (Poaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-109-82. Japan. US National Arboretum. 51131. Collected September 21, 1982. Sand dune, Shunkunitai, Nemuro-shi, Nemuro Hanto, eastern Hokkaido. Lat. 43 deg. 18' N, Long. 145 deg. 36' E. Snow cover 50cm or deeper for 3 days. Minimum temperature -23C. Densely tufted perennial. Leaves strongly glaucous. Wild. Plants.

479407. *Ficus sarmentosa* var. *nipponica* (Fr. & Sav.) Corner (Moraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-388-82. Japan. US National Arboretum. 51407. Collected October 14, 1982. Mt Idzura, near shrine of Idzura-Kam-non-Son, Tochigi-shi, Tochigi-ken, Honshu. 300m. Woody evergreen liana, 4.5-6.0m tall. Much branched, ends

479407-continued

lax. Leaves coriaceous, lustrous above, glaucous beneath, petioles somewhat rufous. Climbing up trunk of *Zelkova serrata*, probably one of the hardiest species of the genus. Growing in woodland. Wild. Cuttings.

479408. *Fraxinus lanuginosa* Koidz. (Oleaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-113-82. Japan. US National Arboretum. 51137. Collected September 22, 1982. Akkeshi Prefectural Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. 70m. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Tree deciduous, small, 6-8m tall. Spreading crown. Bark smooth, light gray. Leaves dark green above, lighter beneath. Growing in mixed woodland, in field 47. Seed collected from one tree. Wild. Seed.

479409 TO 479411. *Fraxinus mandshurica* var. *japonica* Maxim. (Oleaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479409. JH-129-82. Japan. US National Arboretum. 51153. Collected September 22, 1982. Akkeshi Prefectural Forest, Bekambegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 06' N, Long. 145 deg. 0' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Tree deciduous, 20m tall, lofty, erect. Leaves dark green above, yellowish green beneath. Common in forest. Seed collected from one tree. Wild. Seed.

479410. JH-207-82. Japan. US National Arboretum. 51229. Collected September 29, 1982. Nunobe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree deciduous, 9m tall. Branches wide spreading. Bark rough, light gray. Leaves bright green above. Fruit in pendulous clusters. Common in woodland. Seed collected from one tree. Wild. Seed.

479411. Japan. US National Arboretum. 51418. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US National

479409 TO 479411-continued

Arboretum by M. Kawase. Collected in Haboro-machi. Seed.

479412. *Fritillaria camschatcensis* (L.) Ker-Gawl. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-33-82. Japan. US National Arboretum. 51034. Collected September 14, 1982. Sarobetsu Moor, Wakasakanai, Toyotomi-machi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Bulbs purchased from Tourist Center at Sarobetsu Moor. Cultivated. Bulbs.

479413 TO 479414. *Gaultheria niqueliana* Takeda (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479413. JH-119-82. Japan. US National Arboretum. 51147. Collected September 22, 1982. Garden, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Shrub evergreen, low creeping, 7-11cm tall. Leaves light green, lustrous above, lighter beneath. Fruit spongy, inflated. Rather soft, pure white, obovoid, ridged. Seed collected from one plant originally purchased from nursery. Cultivated. Seed.

479414. JH-341-82. Japan. US National Arboretum. 51361. Collected October 09, 1982. Tohoku Univ., Mt. Hakkoda Bot. Lab., Road 1, Aomori-shi, Aomori-ken, Honshu. 1050m. Lat. 40 deg. 37' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Shrub evergreen, 30-35cm tall. Leaves coriaceous, bright lustrous green above, somewhat rugose, pale beneath. Fruit white, spongy texture, nearly globose, ridged (carpels) on reddish petioles. Growing in bog near pond. Seed collected from many plants. Wild. Seed.

479415. *Hemerocallis middendorffii* Trautv. & C. A. Mey. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington,



479415-continued

D.C.

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JH-10-82. Japan. US National Arboretum. 51030. Collected September 12, 1982. Cape Soya, Soya Misaki, Wakkani-shi, Kitami-gun, Hokkaido. Lat. 45 deg. 26' N, Long. 141 deg. 56' E. Snow cover 50cm or more for 67 days. Minimum temperature -19C. One clump. Wild. Plants.

479416 TO 479417. *Hemerocallis* sp. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479416. JH-105-82. Japan. US National Arboretum. 51127. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Growing in sphagnum bog (same as JH-106). Seed collected from several plants. Wild. Seed.

479417. JH-106-82. Japan. US National Arboretum. 51128. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Growing in sphagnum bog (same as JH-105). Wild. Plants.

479418. *Hosta japonica* var. *coerulea* Makino (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-240-82. Japan. US National Arboretum. 51258. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Growing in woodland. Wild. Plants.

479419 TO 479421. *Hosta* sp. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;

479419 TO 479421-continued

March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479419. JH-17-82. Japan. US National Arboretum. 51036. Collected September 14, 1982. Wakasakanai, Toyotomi-machi, Teshiogun, Hokkaido. Lat. 45 deg. 04' N, Long. 141 deg. 35' E. Perennial densely tufted, stout habit 31-92cm tall. Leaves erect, light green. No flowers. Growing in wet meadow 0.7km from beach. Several plants collected. Wild. Plants.

479420. JH-103-82. Japan. US National Arboretum. 51125. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Growing in sphagnum bog (same as JH-104). Seed collected from several plants. Wild. Seed.

479421. JH-104-82. Japan. US National Arboretum. 51126. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Growing in sphagnum bog (same as JH-103). Wild. Plants.

479422 TO 479425. *Hydrangea macrophylla* (Thunb.) Ser. var. *macrophylla* (Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479422. JH-291-82. Japan. US National Arboretum. 51310. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 390m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Seed collected from one plant. Wild. Seed.

479423. JH-292-82. Japan. US National Arboretum. 51311. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 390m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Cuttings collected from one plant. Wild. Cuttings.

479424. JH-304-82. Japan. US National Arboretum. 51325.

479422 TO 479425-continued

Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow 2-3m, 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Shrub deciduous, 1.2-1.7m tall, multistemmed from base. Leaves dark green above with impressed veins; lustrous and pale green beneath. Growing by edge of stream under shade in woodland. Seed collected from one plant. Wild. Seed.

479425. JH-334-82. Japan. US National Arboretum. 51354. Collected October 09, 1982. Yunotai, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 37' N, Long. 140 deg. 58' E. Snow 2-3m, 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Shrub deciduous, 1.2-1.5m tall, multistemmed from base, erect. Leaves dark green above, rugose beneath. Flowers bluish. Bracts deep blue. Forms extensive colonies in open areas, on edge of woodland. Seed collected from several plants. Wild. Seed.

479426 TO 479429. *Hydrangea paniculata* Sieb. (Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479426. JH-1-82. Japan. US National Arboretum. 51020. Collected September 11, 1982. Togeshita near Rumoi-shi, Hokkaido. 342m. Lat. 43 deg. 53' N, Long. 141 deg. 47' E. Snow cover 50cm or more for 73 days. Minimum temperature -23C. Shrub to 2.5m tall, erect, wide, spreading. Leaves light green above, whitish beneath. Only the outermost flowers sterile. Growing at edge of woodland on open hillside with *Alnus*, *Sasa*, & *Vitis*. Seed from several plants. Wild. Seed.
479427. JH-40-82. Japan. US National Arboretum. 51058. Collected September 15, 1982. Arboretum, Teshio Forest, Toikanbetsu, Horonobe-cho, Teshio-gun, Hokkaido. Lat. 44 deg. 53' N, Long. 141 deg. 55' E. Snow cover 1-2m per annum. Minimum temperature -17C. Shrub deciduous, 1.5-1.8m tall, dense habit. Leaves dark green above, somewhat rugose. Bracts of sterile flowers rose pink. Seed from one plant moved from wild. Cultivated. Seed.
479428. JH-159-82. Japan. US National Arboretum. 51181. Collected September 25, 1982. SW slope of Mt. Iwo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 60cm per annum. Minimum temperature -25C. Shrub deciduous, 1.5-2.5m tall. Branches many, especially in upper portion. Leaves deep

479426 TO 479429-continued

green above, pale beneath. Sterile flowers, deep purplish on underside of older flowers; more so than in most other plants observed locally. Growing in mixed woodland. Seed collected from one plant. Wild. Seed.

479429. JH-160-82. Japan. US National Arboretum. 51182. Collected September 25, 1982. SW slope of Mt. Iwo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 60cm per annum. Minimum temperature -25C. Shrub deciduous, 1.5-1.8m tall, multistemmed from base. Above branches many. Stems brown. Leaves bright green above. Sterile flowers, bracts rose-pink on reverse side when old. Growing in mixed woodland. Seed collected from several plants. Wild. Seed.

479430 TO 479431. *Hydrangea petiolaris* Sieb. & Zucc. (Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479430. JH-288-82. Japan. US National Arboretum. 51307. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 320m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Seed collected from one plant. Wild. Seed.

479431. JH-340-82. Japan. US National Arboretum. 51360. Collected October 09, 1982. Along Oirase, Yakeyama, Towada-machi, Aomori-ken, Honshu. 320m. Snow cover 2-3m, 58 days covered by 50cm or deeper. Minimum temperature -20C. Climber deciduous, woody with holdfast roots, 4.6m tall. Leaves green above, whitish beneath. Common in woodland along river. Seed collected from one plant. Wild. Seed.

479432. *Ilex crenata* Thunb. (Aquifoliaceae) Japanese holly.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-36-82. Japan. US National Arboretum. 51056. Collected September 15, 1982. Arboretum, Teshio Forest, Toikanbetsu, Horonobe-cho, Teshio-gun, Hokkaido. Lat. 44 deg. 53' N, Long. 141 deg. 55' E. Snow cover 1-2m per

479432-continued

annum. Minimum temperature -17C. Shrub evergreen, 1.2m. Leaves lustrous above. Fruit black. Seed from one plant moved from wild. Cultivated. Seed.

479433 TO 479434. *Ilex crenata* var. *paludosa* (Nakai) Hara (Aquifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479433. JH-310-82. Japan. US National Arboretum. 51324. Collected October 08, 1982. Tsuta Onsen, Towada-shi, Aomori-ken, Honshu. 470m. Snow 2-3m, 58 days of snow cover 50cm or deeper. Minimum temperature -20C. Cuttings collected from one male plant. Wild. Cuttings.

479434. JH-305-82. Japan. US National Arboretum. 51326. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. 470m. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by 50cm or deeper. Minimum temperature -20C. Shrub evergreen, 1.2-1.7m tall. Branches many, low spreading. Bark smooth, gray. Leaves lustrous above, pale beneath. Fruit nearly black. Growing in marsh on edge of small lake. Seed collected from several plants. Wild. Seed.

479435 TO 479438. *Ilex leucoclada* (Maxim.) Makino (Aquifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479435. JH-267-82. Japan. US National Arboretum. 51288. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp. Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2 days by snow 50cm or deeper. Minimum temperature -18C. Cuttings collected from a female plant moved from Kikonai-machi where it was native. Cultivated. Cuttings.

479436. JH-312-82. Japan. US National Arboretum. 51332. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow cover 2-3m; 58 days covered by 50cm or deeper. Minimum temperature -20C. Cuttings collected from a male plant. Wild. Cuttings.

479435 TO 479438-continued

479437. JH-326-82. Japan. US National Arboretum. 51345. Collected October 09, 1982. Along Kendo #1 hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Growing in wooded area. Cuttings from 2 male plants. Wild. Cuttings.

479438. JH-327-82. Japan. US National Arboretum. 51346. Collected October 09, 1982. Along Kendo #1 hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Shrub evergreen, 60-90cm tall, erect habit, stems green. Leaves coriaceous deep green above, pale beneath. Fruit dark red, globose. Growing in *Fagus crenata* woodland. Cuttings from two female plants. Wild. Cuttings.

479439. *Ilex macropoda* Miq. (Aquifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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JH-390-82. Japan. US National Arboretum. 51412. Collected October 15, 1982. Foot of Mt Nyokoo, near Zyakko Falls, Nikko, Tochigi-ken, Honshu. Tree deciduous, 7.5m tall. Branches wide spreading. Bark smooth, whitish to gray. Leaves dark green above with impressed veins, pale beneath and lustrous. Fruit purplish red, sweet to taste. Growing in woodland on dry ridge. Wild. Seed.

479440 TO 479442. *Ilex rugosa* F. Schmidt (Aquifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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479440. JH-20-82. Japan. US National Arboretum. 51039. Collected September 14, 1982. Dune Forest, Wakaisakanai, Toyotomi-machi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Shrub evergreen, decumbent, 31-38.7cm. Branches rooting along, greenish. Leaves dark green above, rugose, light green beneath. Fruits orange-red. Growing with *Viburnum furcatum*, *Abies sachalinensis*, *Magnolia*, *Quercus mongolica*, *Acanthopanax*, *Kalopanax*.

479440 TO 479442-continued

Seed from several plants. Wild. Seed.

479441. JH-82-82. Japan. US National Arboretum. 51101. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Growing with trees similar to JH-75. Seed collected from several plants. Wild. Seed.

479442. JH-112-82. Japan. US National Arboretum. 51133. Collected September 21, 1982. Dune forest, Shunkunitai, Nemuro-shi, Numuro Hanto, Eastern Hokkaido. Lat. 43 deg. 18' N, Long. 145 deg. 36' E. Snow cover 50cm or deeper for 30 days. Minimum temperature -23C. Shrub evergreen decumbent, 25-30cm tall. Stems declined. Twigs green. Leaves deep green above, lighter beneath. Fruit bright red. Growing in mixed woodland. Seed collected from several plants. Wild. Seed.

479443 TO 479446. *Ilex sugerokii* Maxim. (Aquifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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479443. JH-102-82. Japan. US National Arboretum. 51124. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Shrub evergreen, 1-1.8m tall, multistemmed from base. Branches dense. Leaves subcoriaceous, lustrous above, light green beneath. Fruit red, lustrous. Growing in open woodland in sunny situation. Seed collected from several plants. Wild. Seed.

479444. JH-347-82. Japan. US National Arboretum. 51366. Collected October 10, 1982. Arboretum, Mt Hakkoda Bot. Lab., Tohoku Univ., Sukayu, Aomori-shi, Aomori-ken. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Snow cover 2-3m, 58 days covered by 50cm or deeper. Minimum temperature -20C. Seed collected from several plants. Wild. Seed.

479445. JH-348-82. Japan. US National Arboretum. 51367. Collected October 10, 1982. Arboretum, Mt Hakkoda Bot. Lab., Tohoku Univ., Sukayu, Aomori-shi, Aomori-ken. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Snow cover 2-3m, 58 days covered by snow 50 cm or deeper. Minimum temperature -20c. Cuttings taken from male plants. Wild. Cuttings.

479446. JH-349-82. Japan. US National Arboretum. 51368.

479443 TO 479446-continued

Collected October 10, 1982. Arboretum, Mt Hakkoda Bot. Lab., Tohoku Univ., Sukayu, Aomori-shi, Aomori-ken. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Snow cover 2-3m, 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Cuttings taken from female plant. Wild. Cuttings.

479447 TO 479448. *Iris ensata* var. *spontanea* (Makino) Nakai (Iridaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479447. JH-18-82. Japan. US National Arboretum. 51037. Collected September 14, 1982. Wakasakanai, Toyotomi-machi, Teshiogun, Hokkaido. Lat. 45 deg. 04' N, Long. 141 deg. 35' E. Perennial densely tufted, 50-75cm tall. Rhizomatous; makes a dense clump. Leaves bright green. Fruiting scapes longer than leaves. Wet meadow 0.7km from beach. One plant collected. Wild. Plants.

479448. JH-19-82. Japan. US National Arboretum. 51038. Collected September 14, 1982. Wakasakanai, Toyotomi-machi, Teshiogun, Hokkaido. Lat. 45 deg. 04' N, Long. 141 deg. 35' E. Perennial densely tufted, 50-75cm tall. Rhizomatous; makes a dense clump. Leaves bright green. Fruiting scapes longer than leaves. Wet meadow 0.7km from beach. Seed collected from several plants. Wild. Seed.

479449 TO 479451. *Iris setosa* Pall. (Iridaceae) Arctic iris.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479449. JH-9-82. Japan. US National Arboretum. 51029. Collected September 12, 1982. Cape Soya, Soya Misaki, Wakkani-shi, Kitami-gun, Hokkaido. Lat. 45 deg. 26' N, Long. 141 deg. 56' E. Snow cover 50cm or more for 67 days. Minimum temperature -19C. Rhizomatous from loose clumps 92cm tall. Leaves green but purplish at base. Common in wet meadow. Wild. Plants.

479450. JH-111-82. Japan. US National Arboretum. 51134. Collected September 22, 1982. Kujiranohama, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 42 deg. 59' N, Long. 145 deg. 0' E. Snow cover 40cm per annum, deepest 1.3m.



479449 TO 479451-continued

Minimum temperature -20C. Growing in sea-side meadow on cliff with Sasa (Same as JH-172). Wild. Plants.

479451. JH-172-82. Japan. US National Arboretum. 51135. Collected September 22, 1982. Kujirano-hama, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 42 deg. 59' N, Long. 145 deg. 0' E. Snow cover 40cm annum, deepest 1.3m. Minimum temperature -20C. Growing in sea-side meadow on cliff with Sasa (Same as JH-111). Wild. Seed.

479452. Iris sp. (Iridaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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JH-107-82. Japan. US National Arboretum. 51129. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Growing in sphagnum bog. Wild. Plants.

479453 TO 479454. Juglans ailantifolia Carr. (Juglandaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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479453. JH-123-82. Japan. US National Arboretum. 51141. Collected September 22, 1982. Akkeshi Prefectural Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. 70m. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow cover 40cm, deepest 1.3m. Minimum temperature -20C. Tree deciduous, 9m tall. Branches wide spreading. Leaves dark green above, impressed veins, gray green beneath. Growing in woodland in field 41. Seed collected from one tree. Wild. Seed.

479454. JH-192-82. Japan. US National Arboretum. 51209. Collected September 28, 1982. Arboretum Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Trees 15-16m. Seed collected from several trees. Cultivated. Seed.

479455. *Juniperus chinensis* L. (Cupressaceae) Chinese juniper.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-180-82. Japan. US National Arboretum. 51197. Collected September 27, 1982. Manabe Teien, Inada-machi, Obihiro-shi, Hokkaido. Lat. 42 deg. 55' N, Long. 143 deg. 12' E. Snow cover 16 days 50cm or deeper. Minimum temperature -35C. Tree evergreen, 6m tall, branched near base into several main trunks, upright, very dense habit. Leaves dark green. Fruit glaucous. Growing in nursery 100 years. Originally from Korea. Cultivated. Cuttings.

479456 TO 479458. *Juniperus chinensis* var. *sargentii* Henry (Cupressaceae) Juniper.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479456. JH-76-82. Japan. US National Arboretum. 51095. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Bush upright, 1 m tall, densely branched, stem base 4cm. Growing in sunny location on open cliff of mixed forest with same trees as JH-75. Seed collected from several plants. Wild. Seed.

479457. JH-170-82. Japan. US National Arboretum. 51112. Collected September 18, 1982. Forestry Headquarters Garden, Shari-machi, Shari-gun, Hokkaido. Lat. 43 deg. 55' N, Long. 144 deg. 44' E. Snow cover 2m per annum. Shrub evergreen, densely branched, spreading habit, 1.2m tall. Leaves bright green. Fruit glaucous. Transplanted from nearby mountains. Cultivated. Seed.

479458. JH-171-82. Japan. US National Arboretum. 51113. Collected September 18, 1982. Forestry Headquarters Garden, Shari-machi, Shari-gun, Hokkaido. Lat. 43 deg. 55' N, Long. 144 deg. 44' E. Snow cover 2m per annum. Shrub evergreen, densely branched, spreading habit, 1.2m tall. Leaves bright green. Fruit glaucous. Transplanted from nearby mountains. Cultivated. Cuttings.

479459. *Kalopanax septemlobos* (Thunb.) Koidz. (Araliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-68-82. Japan. US National Arboretum. 51087. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, 9-12m tall. Branches wide spreading, prickly. Bark gray, furrowed. Leaves bright green above, lighter beneath and lustrous. Fruiting peduncles whitish. Growing in a mixed woodland of *Aralia*, *Maackia*, & *Populus* in field no. 121. Seed from one tree. Wild. Seed.

479460. *Ledum palustre* var. *diversipilosum* Nakai (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-166-82. Japan. US National Arboretum. 51188. Collected September 25, 1982. SW slope of Mt. Iwo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow 60cm per annum. Minimum temperature -25C. Shrub evergreen, 61-92cm tall. Branches many, aromatic, very gregarious. Leaves bright green above, rugose, rusty, tomentose beneath. Abundant, covering extensive area on bushy hillsides and on flat areas in volcanic soil. Seed collected from several plants. Wild. Seed.

479461 TO 479462. *Lespedeza thunbergii* (DC.) Nakai (Fabaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479461. JH-264-82. Japan. US National Arboretum. 51285. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp. Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2 days by snow 50cm or deeper. Minimum temperature -18C. Perennial densely tufted, up to 2m tall. Stems below naked, green, forms a large clump with numerous stems.

479461 TO 479462-continued

Leaves dark green above, pale beneath. Flowers white. Plants divided from original plant, which was purchased at a garden center and now established. Cultivated. Plants.

479462. JH-356-82. 'Albiflora'. Japan. US National Arboretum. 51375. Collected October 11, 1982. Mitsukoshi Dept. Store, Muromachi, Nihomba-shi, Chud-ku, Tokyo. Flowers white. Plant purchased. Cultivar. Plants.

479463 TO 479466. *Lilium cordatum* (Thunb.) Koidz. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479463. JH-144-82. Japan. US National Arboretum. 51166. Collected September 23, 1982. E 7km of Kushiro along hwy 44, Kushiro-shi, Hokkaido. Lat. 42 deg. 59' N, Long. 144 deg. 17' E. Snow cover 50cm or deeper for 6 days. Minimum temperature -28C. Seed from one plant. Wild. Seed.
479464. JH-157-82. Japan. US National Arboretum. 51179. Collected September 24, 1982. West side of Lake Kusharo, Urankoshi, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 34' N, Long. 144 deg. 19' E. Snow 60cm per annum. Minimum temperature -25C. Growing in woodland. Wild. Seed.
479465. JH-222-82. Japan. US National Arboretum. 51226. Collected September 29, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Seed collected from 3 plants. Wild. Seed.
479466. JH-233-82. Japan. US National Arboretum. 51251. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Wild. Bulbs.

479467. *Lilium maculatum* var. *davuricum* (Ker-Gawl.) Ohwi (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479467-continued

JH-74-82. Japan. US National Arboretum. 51093. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Growing in field no. 122. Seed collected from one plant. Wild. Seed.

479468 TO 479470. *Lilium* sp. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

479468. JH-141-82. Japan. US National Arboretum. 51163. Collected September 21, 1982. School yard, Kushiro, Hokkaido. Snow cover 50cm or deeper for 6 days. Minimum temperature -28C. Bulblets collected from plant. Cultivated. Bulbs.

479469. JH-181-82. Japan. US National Arboretum. 51198. Collected September 27, 1982. Along road 38 SE of Yamabe, Higashiyama, Furano-shi, Hokkaido. Lat. 43 deg. 12' N, Long. 142 deg. 27' E. Snow 2.5m per annum. Minimum temperature -30C. Leaves lustrous, deep green above. Flowers orange with dark purple spots, tepals reflexed, styles and filaments bright orange. Cultivated for commercial production of bulbs. Used for food. Cultivated. Bulbs.

479470. JH-182-82. Japan. US National Arboretum. 51199. Collected September 27, 1982. Along road 38 SE of Yamabe, Higashiyama, Furano-shi, Hokkaido. Lat. 43 deg. 12' N, Long. 142 deg. 27' E. Snow 2.5m per annum. Minimum temperature -30C. Flowers not seen. Bulbs used for food. Cultivated. Bulbs.

479471. *Lindera umbellata* Thunb. (Lauraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-321-82. Japan. US National Arboretum. 51340. Collected October 09, 1982. Along Kendo #1 Hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Shrub deciduous, 2.5-3m tall, upright habit, stems upright. Leaves bright green above, blue green beneath. Fruit black. Growing in open woodland with *Sasa*. Seed collected from several plants. Wild. Seed.

479472 TO 479473. *Lindera umbellata* var. *aurantiaca* Hiyama (Lauraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479472. JH-322-82. Japan. US National Arboretum. 51341. Collected October 08, 1982. Along Kendo #1 Hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Shrub 1.8-2.1m tall, upright habit, branches somewhat yellowish and aromatic when broken. Leaves light green above, nearly glaucous beneath. Fruit yellowish, hard. Seed collected from 2 plants. Wild. Seed.

479473. JH-323-82. Japan. US National Arboretum. 51342. Collected October 09, 1982. Along Kendo #1 Hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Same plants as JH-322-82. Cuttings taken from 2 plants. Wild. Cuttings.

479474. *Lithocarpus edulis* (Makino) Nakai (Fagaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-384-82. Japan. US National Arboretum. 51403. Collected October 12, 1982. Funatsu-en, Akashiba, Kawaguchi, Saitama-ken, Central Honshu. Leaves with yellowish blotch in middle. Plant purchased. Received as *Pasania edulis*. Cultivated. Plants.

479475. *Lonicera alpigena* var. *glehnii* (F. Schmidt) Nakai (Caprifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-24-82. Japan. US National Arboretum. 51043. Collected September 14, 1982. Dune Forest, Wakaisakanai, Toyotomimachi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long.

479475-continued

141 deg. 43' E. Shrub deciduous, 2m tall. Leaves dark green above, light green beneath. Fruit red. Sunny location in forest clearing. Seed collected from 2 plants. Wild. Seed.

479476 TO 479477. *Lonicera* sp. (Caprifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479476. JH-122-82. Japan. US National Arboretum. 51150. Collected September 22, 1982. Akkeshi Prefectural Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Shrub deciduous, 1.8-2.1m tall. Branches many, light gray. Leaves bright green above with impressed veins, light green beneath. Fruit fleshy, somewhat translucent, red. Growing in woodland. Seeds collected from 3 plants. Wild. Seed.

479477. JH-142-82. Japan. US National Arboretum. 51164. Collected September 23, 1982. East, 7km of Kushiro along hwy #44, Kushiro-shi, Hokkaido. Lat. 42 deg. 59' N, Long. 144 deg. 27' E. Snow cover 50cm or deeper for 6 days. Minimum temperature -28C. Shrub deciduous, 1.8-2.5m tall. Branches spreading. Leaves dark green above, impressed veins, blue-green beneath. Fruit deep red, fleshy. Growing on edge of woodland. Seed collected from several plants. Wild. Seed.

479478. *Lysichiton camtschatcense* (L.) Schott (Araceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-367-82. Japan. US National Arboretum. 51386. Collected October 12, 1982. Nihonkaki Corp., 184 Tshigami, Kawaguchi, Saitama-ken, Honshu. Plants donated. Cultivated. Plants.

479479 TO 479480. *Magnolia kobus* DC. (Magnoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington,

479479 TO 479480-continued

D.C.

Received February 1983.

479479. JH-89-82. Japan. US National Arboretum. 51108. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 200m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Tree deciduous, 9m tall, erect. Bark smooth, light gray. Leaves light green above, lighter beneath. Fruiting cones reddish. Seeds with reddish aril. Growing near stream bank with trees as in JH-85. Seed collected from one tree. Wild. Seed.

479480. JH-273-82. Japan. US National Arboretum. 51295. Collected October 05, 1982. Onuma, Nanae-machi, Kameda-gun, Hokkaido. Lat. 41 deg. 57' N, Long. 140 deg. 42' E. Snow cover for 2 days by 50cm or deeper. Tree deciduous, lofty, 15m tall, upright, spreading habit. Branches spreading. Bark smooth, light gray. Leaves bright green above, somewhat paler beneath. Aril on seeds orange. Growing in woodland of Sasa, beech, Quercus, Acer, Pachysandra, Aesculus, Cephalotaxus. Seed collected from one tree. Wild. Seed.

479481. *Magnolia kobus* var. *borealis* Sarg. (Magnoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

Japan. US National Arboretum. 51422. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US National Arboretum by Dr. M. Kawase. Collected in Kagura, Asahitsawa-shi. Seed.

479482 TO 479488. *Magnolia obovata* Thunb. (Magnoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479482. JH-29-82. Japan. US National Arboretum. 51050. Collected September 14, 1982. Kasai-Okuchi area, Hokkaido Univ., Teshio Forest, Horonobe-cho, Teshio-gun. Lat. 45 deg. 0' N, Long. 141 deg. 58' E. Snow 1-2m per annum. Minimum temperature -17C. Tree deciduous, to 9.1m, multitrunked. Branches spreading. Leaves bright green above. Fruit



479482 TO 479488-continued

- terminal on branches. Common in mixed woodlands with Betula, Ficea, Acer. Seed from 3 trees. Wild. Seed.
479483. JH-70-82. Japan. US National Arboretum. 51089. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 100m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, 7.6-9m tall, multistemmed in some. Bark smooth, gray. Leaves bright green above, whitish midvein, glaucous beneath. Fruit reddish at maturity. Common in mixed forest in field no. 119. Seed from several plants. Wild. Seed.
479484. JH-174-82. Japan. US National Arboretum. 51191. Collected September 27, 1982. Kushiro Municipal Museum, Tsurugadai Kushiro, Hokkaido. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, 7m tall, upright habit. Bark smooth, whitish. Leaves bright green above. Aggregate follicles turning red. Seed collected from one tree in Akan, Akan-machi and presented to group. Wild. Seed.
479485. JH-187-82. Japan. US National Arboretum. 51204. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree 12m tall, 40-50 years old. Seed collected from 2 plants. Cultivated. Seed.
479486. JH-283-82. Japan. US National Arboretum. 51302. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 200m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Tree deciduous, 11m tall, upright habit. Bark smooth, light gray. Leaves dark green above, whitish beneath, more or less whorled at twig ends. Fruiting aggregate follicles purplish red. Growing on edge of woodland. Collected from one tree. Wild. Seed.
479487. JH-309-82. Japan. US National Arboretum. 51330. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Seed collected from several plants. Wild. Seed.
479488. Japan. US National Arboretum. 51423. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US National Arboretum by M. Kawase. Collected in Biei-machi. Seed.

479489. *Magnolia salicifolia* (Sieb. & Zucc.) Maxim. (Magnoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-320-82. Japan. US National Arboretum. 51339.  
Collected October 09, 1982. Along Kendo #1 hwy,  
Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40  
deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days  
covered by snow 50cm or deeper. Minimum temperature -20C.  
Shrub deciduous, 1.8-3m tall, multistemmed from base,  
broken twigs strongly aromatic. Leaves dark green above,  
glaucous beneath. Growing at edge of woodland. Seed  
collected from 3 plants. Wild. Seed.

479490. *Maianthemum bifolium* (L.) F.W. Schmidt (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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JH-34-82. Japan. US National Arboretum. 51046. Collected  
September 14, 1982. Dune Forest, Wakaisakanai, Toyotomi-  
machi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long.  
141 deg. 43' E. Perennial rhizomatous, short. Stem  
purplish mottled. Leaves bright green above, veins  
impressed above. Fruit hard, purple blotched; stained  
purple when crushed. Growing in deep forest. Wild. Plants.

479491 TO 479492. *Malus baccata* var. *mandshurica* (Maxim.) C. K. Schn.  
(Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479491. JH-175-82. Japan. US National Arboretum. 51192.  
Collected September 27, 1982. Kushiro Municipal Museum,  
Tsurugadai Kushiro, Hokkaido. Snow cover 60cm per annum.  
Minimum temperature -25C. Tree deciduous, small, 4m tall.  
Seed collected from one tree in Tsurugadai in Kushiro-shi  
and presented to group. Wild. Seed.

479492. JH-184-82. Japan. US National Arboretum. 51201.  
Collected September 28, 1982. Arboretum, Tokyo Univ.

479491 TO 479492-continued

Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree deciduous, 6m tall. Crown broad. Branches spreading. Leaves dull dark green above, light green beneath. Bark rough, light gray. Fruit turning light reddish. Seed collected from one tree 40 years old with slight evidence of scab. Cultivated. Seed.

479493. *Menziesia ciliicalyx* (Miq.) Maxim. (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-307-82. Japan. US National Arboretum. 51328. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by 50cm or deeper. Minimum temperature -20C. Shrub deciduous, 1.2-1.5m tall, multistemmed from base. Stems smooth, light gray. Leaves dark green above, pale beneath. Growing at edge of marsh by small lake. Seed collected from several plants. Wild. Seed.

479494. *Menziesia ciliicalyx* var. *multiflora* (Maxim.) Makino (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-352-82. Japan. US National Arboretum. 51371. Collected October 10, 1982. Arboretum, Mt Hakkoda Bot. Lab., Tohoku Univ., Sukayu, Aomori-shi, Aomori-ken. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Seed collected from several plants. Wild. Seed.

479495. *Mertensia pterocarpa* (Turcz.) Tatew. & Ohwi (Boraginaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479495-continued

JH-138-82. Japan. US National Arboretum. 51161. Collected September 22, 1982. Osonai, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 09' N, Long. 145 deg. 04' E. Snow 40cm per annum, deepest 1.3m. Minimum temperature -20C. Perennial, 30cm tall, tufted. Leaves deep green above, impressed veins, strongly glaucous beneath. Flowers deep blue, turning pinkish. Cultivated in garden. Several plants collected. Cultivated. Plants.

479496. *Miscanthus sacchariflorus* (Maxim.) Hack. (Poaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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JH-366-82. Japan. US National Arboretum. 51385. Collected October 12, 1982. Suzuk Wild Flower Garden, Angyo, Saitama-ken, Central Honshu. Plant purchased. Cultivated. Plants.

479497. *Nuphar japonicum* DC. (Nymphaeaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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JH-31-82. Japan. US National Arboretum. 51048. Collected September 14, 1982. Pond, Wakasakanai, Toyotomi-machi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Aquatic. Leaves rising above water level. Petals yellow on inside with a green blotch on outside, fragrant, stamens yellow, stigmas purple. Common in small pond. Wild. Plants.

479498. *Nymphaea tetragona* var. *angusta* Casp. (Nymphaeaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-26-82. Japan. US National Arboretum. 51047. Collected September 14, 1982. Pond, Wakasakanai, Toyotomi-machi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Aquatic. Leaves floating, somewhat purplish beneath, green above. Common in small pond. Wild. Plants.

479499. *Nymphaea tetragona* Georgi var. *tetragona* (Nymphaeaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-342-82. Japan. US National Arboretum. 51362. Collected October 09, 1982. Sukayu Sta., Tohoku Univ., Road 1, Mt. Hakkado, Aomori-shi, Aomori-ken, Honshu. 1050m. Lat. 40 deg. 37' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Leaves small, white. Wild. Plants.

479500. *Orchis* sp. (Orchidaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-398-82. Japan. US National Arboretum. 51315. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 200m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Wild. Plants.

479501. *Oreorchis patens* (Lindl.) Lindl. (Orchidaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-329-82. Japan. US National Arboretum. 51348. Collected October 09, 1982. Along Kendo #1 Hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Perennial with prominent veins. Leaves bright green, plicate. Fruiting stalk erect. Rare. Growing in *Fagus crenata* woodland. Wild. Plants.

479502 TO 479503. *Ostrya japonica* Sargent (Betulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington,

479502 TO 479503-continued  
D.C.  
Received February 1983.

479502. JH-64-82. Japan. US National Arboretum. 51083. Collected September 17, 1982. Abashiri National Forest, Urbar Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, upright 12-15m tall. Bark shaggy, peeling. Leaves pale green, lighter green beneath, soft. Fruit turning brown, pendulous. Growing in mixed woodland with *Aralia*, *Vitis*, & *Alnus* in field no. 121. Seed from one tree. Wild. Seed.

479503. JH-244-82. Japan. US National Arboretum. 51262. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Tree deciduous. Branches wide spreading. Bark peeling in thin plates, somewhat spongy, light gray. Leaves light, dull green above, paler beneath. Growing in woodland. Wild. Seed.

479504. *Pachysandra axillaris* Franch. (Buxaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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JH-365-82. Japan. US National Arboretum. 51384. Collected October 12, 1982. Suzuk Wild Flower Garden, Angyo, Saitama-ken, Central Honshu. Plant purchased. Cultivated. Plants.

479505 TO 479509. *Pachysandra terminalis* Sieb. & Zucc. (Buxaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

479505. JH-66-82. Japan. US National Arboretum. 51085. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Perennial, rhizomatous, forming a ground cover. Leaves lustrous green above, lighter beneath. Fruit pure white, nearly globose. Rarely fruiting among the wild populations observed. Locally abundant in dense woodland in field no. 122. Cuttings taken from several plants. Wild. Cuttings.

479505 TO 479509-continued

479506. JH-131-82. Japan. US National Arboretum. 51155. Collected September 22, 1982. Akkeshi Prefectural Forest, Bekanbegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 06' N, Long. 145 deg. 0' E. Snow 40cm, deepest 1.3m. Minimum temperature -20C. Evergreen ground creeper, 15-20cm tall, rhizomatous, stems green. Leaves dark green above, veins lighter. Fruit white. Growing in a very wet place in dense woodland. Several plants collected. Wild. Plants.
479507. JH-149-82. Japan. US National Arboretum. 51171. Collected September 24, 1982. SE, 3.2km of Lake Kusharo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 35' N, Long. 144 deg. 23' E. Snow 60cm per annum. Minimum temperature -25C. Growing in mixed woodland. Wild. Plants.
479508. JH-247-82. Japan. US National Arboretum. 51265. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Evergreen subshrub with long creeping root stalks. Stems smooth, green, pliable. Leaves lustrous green above with lighter colored veins, lighter beneath with veins not evident. Fruit white to translucent with black seeds. Abundant on forest floor in woodland. Wild. Plants.
479509. JH-277-82. Japan. US National Arboretum. 51299. Collected October 05, 1982. Onuma, Nanae-machi, Kameda-gun, Hokkaido. Lat. 41 deg. 57' N, Long. 140 deg. 42' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Wild. Plants.

479510. *Paeonia japonica* (Makino) Miyabe & Takeda (Ranunculaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-73-82. Japan. US National Arboretum. 51092. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Perennial, 32cm tall. Leaves green above, glaucous beneath. Mature seeds purple black, the follicles covered with numerous red sterile seeds. Growing in deep woodland near roadside and in field no. 121. Seed collected from a single plant. Wild. Plants.

479511. *Petasites japonicus* var. *giganteus* (F. Schmidt) Nichols  
(Asteraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-135-82. Japan. US National Arboretum. 51158.  
Collected September 22, 1982. Akkeshi Prefectural Forest,  
Bekambegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43  
deg. 06' N, Long. 145 deg. 0' N. Snow 40cm, deepest 1.3m.  
Minimum temperature -20C. Several plants collected. Wild.  
Plants.

479512. *Phellodendron amurense* Rupr. (Rutaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

Japan. US National Arboretum. 51420. Hokkaido (Federal)  
Forest Breeding Station, Hokkaido. Sent to US National  
Arboretum by M. Kawase. Collected in Esashi-machi. Seed.

479513. *Phellodendron* sp. (Rutaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-299-82. Japan. US National Arboretum. 51313.  
Collected October 06, 1982. Mori National Forest,  
Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 390m. Lat. 42  
deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by  
50cm or deeper. Minimum temperature -18C. Tree deciduous,  
small, 5.6m tall. Crown spreading. Branches wide. Twigs  
brown. Bark smooth, light gray. Leaves dark green above,  
whitish beneath. Growing in woodland. Seed collected from  
one tree. Wild. Seed.

479514 TO 479515. *Picea glehnii* (Schmidt) Masters (Pinaceae) Sakhalin  
spruce.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development



479514 TO 479515-continued

Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479514. JH-96-82. Japan. US National Arboretum. 51118. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Evergreen tree, 6m tall. Branches stiff. Leaves bright green, lustrous. Cones reddish brown. Growing in open, wet area with *Abies sachalinensis*. Tree seems rare in area, only one seen. Seed collected from one plant. Wild. Seed.

479515. JH-209-82. Japan. US National Arboretum. 51232. Collected September 29, 1982. South slope of Mt. Dairoku, Furano-shi, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Evergreen, up to 4.6m tall, spreading. Branches stiff, close. Leaves lustrous dark green. Cones erect, purple. Scattered on steep wooded slopes. Seed collected from 2 trees. Wild. Seed.

479516 TO 479517. *Picea jezoensis* (Sieb. & Zucc.) Carr. (Pinaceae)  
Yeddo spruce.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479516. JH-139-82. Japan. US National Arboretum. 51162. Collected September 22, 1982. Osonai, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 09' N, Long. 145 deg. 04' E. Snow 40cm, deepest 1.3m. Minimum temperature -20C. Tree mature. Bark white. Seedling collected from a nursery of Hokkaido Pref. Forest Service, Akkeshi Station. Seeds for the seedlings are of local origin. Cultivated. Plants.

479517. JH-226-82. Japan. US National Arboretum. 51228. Collected September 29, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Seed collected from one plant. Cultivated. Plants.

479518. *Picrasma quassioides* (D. Don) Benn. (Simaroubaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;

479518-continued

March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-69-82. Japan. US National Arboretum. 51088. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 100m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, 9-13m tall, upright habit. Bark smooth, dark gray. Leaves lustrous dark green above, whitish beneath, rachis reddish. Fruit surrounded with a reddish aril. Growing on edge of woodland with Tilia & Magnolia in field no. 119. Seed collected from one tree. Wild. Seed.

479519. *Pinus parviflora* Sieb. & Zucc. (Pinaceae) Japanese white pine.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-185-82. Japan. US National Arboretum. 51202. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Seed collected from 3 trees, 11m tall. Mother plants not native to area; originally from Erimo. Cultivated. Seed.

479520 TO 479523. *Pinus pumila* (Pallas) Regel (Pinaceae) Stone pine.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479520. JH-75-82. Japan. US National Arboretum. 51094. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Evergreen shrub, 1 m tall. Leaves blue green. Growing in mixed forest in cliff habitat, open area, rocky, with Populus, Sorbus, Quercus, Carpinus, Sasa & Viburnum. Seed collected from one plant, not mature. Wild. Seed.

479521. JH-98-82. Japan. US National Arboretum. 51120. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44

479520 TO 479523-continued

deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Tree evergreen, low, 1.2-3m tall, usually with ascending trunks, sometimes erect, forms extensive dense stands to the timber line. Bark scaly in old specimens. Leaves blue green. Cones brown (very rare this season). Growing in open field with Sasa. Wild. Seed.

479522. JH-163-82. Japan. US National Arboretum. 51185. Collected September 25, 1982. SW slope of Mt. Iwo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow 60cm per annum. Minimum temperature -25C. Shrub to small tree, evergreen, 2.5-3.0m tall. Lower portion of trunk decumbent, rarely erect. Bark somewhat flaky, peeling in old plants, dark brown. Leaves strongly blue-green. Cones terminal, scarce. Forms extensive and continuous forests on open slopes. Seed collected from several trees. Wild. Seed.

479523. JH-249-82. Japan. US National Arboretum. 51241. Collected September 29, 1982. South slope of Mt. Dairoku, Furano-shi, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Seedlings collected. Wild. Plants.

479524. *Plagiogyria semicordata* subsp. *matsumureana* (Makino) Nakaike (Plagiogyriaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-54-82. Japan. US National Arboretum. 51072. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. Snow 1.5-2.5m per annum. Minimum temperature -35C. Fern, 61cm tall, densely tufted with thick woody root. Leaves dimorphic, leathery, lustrous on upper side. Fertile fronds rising above sterile. Growing on a deeply shaded, moist bank above rivulet near forest marker 320. Wild. Plants.

479525. *Polygonatum* sp. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479525-continued

JH-53-82. Japan. US National Arboretum. 51071. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. Snow 1.5-2.5m per annum. Minimum temperature -35C. Perennial rhizomatus, short, from a very thick fleshy root, 31-76cm tall. Fruit purple, somewhat glaucous. Growing in open area near forest field 320. Several plants collected. Wild. Plants.

479526. *Polygonum* sp. (Polygonaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-382-82. Japan. US National Arboretum. 51401. Collected October 12, 1982. Kogara Co-operative Nursery, Bonsai Cen., Angyo, Saitama-ken, Central Honshu. Dwarf form with pink flowers. Plant purchased. Cultivated. Plants.

479527. *Primula kisoana* Miq. (Primulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-387-82. Japan. US National Arboretum. 51406. Collected October 14, 1982. Private Nursery, below shrine, Idzuru-Kam'non San, Mt Idzuru, Honshu. Flowers rose purple. Plants purchased. Cultivated. Plants.

479528. *Primula takedana* Tatew. (Primulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-42-82. Japan. US National Arboretum. 51054. Collected September 15, 1982. Hokkaido Univ., Teshio Forest, Toikanbetsu, Horonobe-cho, Teshio-gun, Hokkaido. Lat. 44 deg. 53' N, Long. 141 deg. 55' E. Snow 1-2m per annum. Minimum temperature -17C. Plant presented to group. Cultivated from a wild collection. Cultivated. Plants.

479529. *Prunus ssiiori* Schmidt (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;

479529-continued

March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-7-82. Japan. US National Arboretum. 51026. Collected September 11, 1982. Togeshita near Rumoi-shi, Hokkaido. 342m. Lat. 43 deg. 53' N, Long. 141 deg. 47' E. Snow cover 50cm or more for 73 days. Minimum temperature -23C. Shrub deciduous, 3-4.6m tall, open-branched. Leaves bright green above, lighter beneath. Fruit purple-black, fleshy on pendulous racemes. Component of dense woodland (2nd growth) on hillside. Wild. Seed.

479530. *Pterocarya rhoifolia* Sieb. & Zucc. (Juglandaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-332-82. Japan. US National Arboretum. 51352. Collected October 09, 1982. Yunotai, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 37' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Tree deciduous, 11m tall. Branches spreading. Bark peeling in plates, gray-green. Leaves dark green above, pale beneath. Fruit pendulous in long chain like spikes. Growing in open area near roadside. Seed collected from 3 trees. Wild. Seed.

479531 TO 479533. *Pyracantha angustifolia* (Franch.) C. Schneid. (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

479531. JH-374-82. Japan. US National Arboretum. 51393. Collected October 12, 1982. Garden of M. Yokoi, Angyo, Kawaguchi, Saitama-ken, Central Honshu. Yellow foliage in spring. Cutting donated. Cultivated. Cuttings.

479532. JH-375-82. Japan. US National Arboretum. 51394. Collected October 12, 1982. Garden of M. Yokoi, Angyo, Kawaguchi, Saitama-ken, Central Honshu. Leaves variegated. Local name Chiyoda-Nishiki. Cuttings donated. Cultivated. Cuttings.

479531 TO 479533-continued

479533. JH-376-82. Japan. US National Arboretum. 51395. Collected October 12, 1982. Garden of M. Yokoi, Angyo, Kawaguchi, Saitama-ken, Central Honshu. Cuttings donated. Cultivated. Cuttings.

479534. *Quercus mongolica* Fisch. ex Turcz. (Fagaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-13-82. Japan. US National Arboretum. 51031. Collected September 12, 1982. Sarobetsu Moor, Wakasakanai, Toyotomimachi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Tree deciduous, 4-6m tall, often multi-branched. Bark rough, light gray. Leaves bluish-green above, lustrous, leathery, light green beneath. Dominant tree near sea, growing between highway and pasture in a wood 100m wide and more than 1 mile long with *Acer mono* and *Sasa*. Collected from several trees. Wild. Seed.

479535 TO 479539. *Quercus mongolica* var. *grosseserrata* (Bl.) Rehd. & E. H. Wils. (Fagaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479535. JH-49-82. Japan. US National Arboretum. 51067. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. Snow 1.5-2.5m per annum. Minimum temperature -35C. Tree deciduous, 12.2m tall. Branches spreading. Bark rough, light gray. Leaves dark green above, lustrous. Growing by a service road, common in woodland by field marker 320. Seed collected on ground from a single tree. Wild. Seed.

479536. JH-203-82. Japan. US National Arboretum. 51220. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-si, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Trees 16-17m tall. Seed collected from 3 trees. Cultivated. Seed.

479537. JH-284-82. Japan. US National Arboretum. 51303. Collected October 06, 1982. Mori National Forest,

479535 TO 479539-continued

Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 200m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Tree deciduous, 15m tall. Crown dense, round headed. Bark rough, peeling in thin plates, light gray. Leaves dark green above, blue-green beneath. Common in woodland. Seed collected from one tree. Wild. Seed.

479538. JH-308-82. Japan. US National Arboretum. 51329. Collected October 08, 1982. Tsuta Numa, Towada-shi, Aomori-ken, Honshu. Lat. 40 deg. 33' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Tree 13m tall. Seed collected from one tree. Wild. Seed.

479539. JH-337-82. Japan. US National Arboretum. 51357. Collected October 09, 1982. Along Cirase, Yakeyama, Towada-machi, Aomori-ken, Honshu. 320m. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Tree deciduous, lofty, 20m tall. Crown wide spreading. Bark rough, light gray. Leaves dark green above, pale green beneath. Common in woodland along river. Seed collected on the ground. Wild. Seed.

479540. *Quercus myrsinifolia* Bl. (Fagaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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JH-389-82. Japan. US National Arboretum. 51408. Collected October 14, 1982. Mt Idzura, near shrine of Idzura-Kam-non-Son, Tochigi-shi, Tochigi-ken, Honshu. 150m. Tree evergreen, 11m tall, densely branched. Leaves subcoriaceous, lustrous above, glaucous beneath. Bark smooth, light gray. Growing under *Cryptomeria japonica*. Cultivated. Seed.

479541 TO 479542. *Rhamnus japonica* Maxim. (Rhamnaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

479541. JH-225-82. Japan. US National Arboretum. 51227. Collected September 29, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg.

479541 TO 479542-continued

14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree deciduous, 7.6m tall, dioecious. Crown broad, densely branched, double trunked. Bark rough, dark brown. Leaves dark green above. Fruit turning dark purple. Seed collected from one plant. Cultivated. Seed.

479542. JH-231-82. Japan. US National Arboretum. 51249. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Shrub deciduous, 4.6m tall, large, upright, densely branched. Leaves bright green above. Bark rough, dark gray. Fruit nearly black, fleshy, flattened, globose. Growing on edge of woodland near small swampy area. Wild. Seed.

479543 TO 479544. *Rhododendron albrechtii* Maxim. (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

479543. JH-215-82. Japan. US National Arboretum. 51238. Collected September 29, 1982. South slope of Mt Dairoku, Furano-shi, Hokkaido. 1100m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 1-2m tall, open branched. Leaves dark green above, pale and somewhat lustrous beneath. Growing in open woodland. Seed collected from several plants. Wild. Seed.

479544. JH-350-82. Japan. US National Arboretum. 51369. Collected October 10, 1982. Arboretum, Mt Hakkoda Bot. Lab., Tohoku Univ., Sukayu, Aomori-shi, Aomori-ken. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Seed collected from several plants. Wild. Seed.

479545. *Rhododendron aureum* Georgi (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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JH-177-82. Japan. US National Arboretum. 51194. Collected September 27, 1982. Manabe Teien, Inada-machi,



479545-continued

Obihiro-shi, Hokkaido. Lat. 42 deg. 55' N, Long. 143 deg. 12' E. Snow cover 16 days 50cm or deeper. Minimum temperature -35C. Cultivated. Plants.

479546 TO 479548. *Rhododendron brachycarpum* D. Don (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479546. JH-164-82. Japan. US National Arboretum. 51186. Collected September 25, 1982. SW slope of Mt Iwo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow 60cm per annum. Minimum temperature -25C. Shrub evergreen, 1.8-2.5m tall, multitrunked from base. Stems dark brown, scaly. Leaves coriaceous, deep green above, whitish to brownish beneath, petioles whitish. Growing on open bushy slopes covered predominantly with *Pinus pumila*. Seed collected from several plants. Wild. Seed.

479547. JH-178-82. Japan. US National Arboretum. 51195. Collected September 27, 1982. Manabe Teien, Inada-machi, Obihiro-shi, Hokkaido. Lat. 42 deg. 55' N, Long. 143 deg. 12' E. Snow cover 16 days 50cm or deeper. Minimum temperature -35C. Slow growing, round leaf. Mother plants originated in Erimo area. Cultivated. Plants.

479548. JH-351-82. Japan. US National Arboretum. 51370. Collected October 10, 1982. Arboretum, Mt Hakkoda Bot. Lab., Tohoku Univ., Sukayu, Aomori-shi, Aomori-ken. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Seed collected from several plants. Wild. Seed.

479549 TO 479551. *Rhododendron dauricum* L. (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479549. JH-57-82. Japan. US National Arboretum. 51075. Collected September 16, 1982. Yard of Hokkaido Univ., Uryu Forest, Tokuda (rd no.40) Nayoro-shi, Hokkaido. Lat. 44 deg. 20' N, Long. 142 deg. 27' E. Snow cover 1.5-2.5m per annum. Minimum temperature -35C. Shrubs originally wild in Kyushu University Forest in Ashiyoro. Cuttings from 6

479549 TO 479551-continued  
shrubs. Cultivated. Cuttings.

479550. JH-165-82. Japan. US National Arboretum. 51187.  
Collected September 25, 1982. SW slope of Mt Iwo,  
Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36'  
N, Long. 144 deg. 26' E. Snow 60cm per annum. Minimum  
temperature -25C. Shrub evergreen, 1.5-1.8m tall, much  
branched throughout, twiggy. Leaves lustrous deep green  
above, yellowish green beneath. Flowers purple. Seed  
collected from several plants. Wild. Seed.

479551. JH-176-82. Japan. US National Arboretum. 51193.  
Collected September 27, 1982. Manabe Teien, Inada-machi,  
Obihiro-shi, Hokkaido. Lat. 42 deg. 55' N, Long. 143 deg.  
12' E. Snow cover 16 days, 50cm or deeper. Minimum  
temperature -35C. Flowers white. Cultivated. Plants.

479552. *Rhododendron japonicum* (A. Gray) Suring. (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-303-82. Japan. US National Arboretum. 51322.  
Collected October 08, 1982. Tsuta Onsen, Towada-shi,  
Aomori-ken, Honshu. 470m. Snow 2-3m, 58 days of snow 50cm  
or deeper. Minimum temperature -20C. Plants 1.2m tall.  
Seed collected from several plants. Wild. Seed.

479553 TO 479556. *Rhododendron kaempferi* Planch. (Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479553. JH-294-82. Japan. US National Arboretum. 51316.  
Collected October 06, 1982. Near Lake Onuma, Onuma, Nanae-  
cho, Kameda-gun, Hokkaido. Lat. 41 deg. 59' N, Long. 140  
deg. 43' E. Snow cover 2 days by 50cm or deeper. Minimum  
temperature -18C. Shrub deciduous, 1.2-1.5m tall,  
multitrunked from base, very twiggy throughout. Flowers  
brick red. Growing on edge of lake. Seed collected from  
several plants. Wild. Seed.

479554. JH-295-82. Japan. US National Arboretum. 51317.  
Collected October 06, 1982. Near Lake Onuma, Onuma, Nanae-  
cho, Kameda-gun, Hokkaido. Lat. 41 deg. 59' N, Long. 140

479553 TO 479556-continued

deg. 43' E. Snow cover 2 days by 50cm or deeper. Minimum temperature -18C. Shrub deciduous, 1.2-1.5m tall, multitrunked from base, very twiggy throughout. Flowers brick red. Growing on edge of lake. Cuttings collected from several plants. Wild. Cuttings.

479555. JH-296-82. Japan. US National Arboretum. 51318. Collected October 06, 1982. Near Lake Onuma, Onuma, Nanae-cho, Kameda-gun, Hokkaido. Lat. 41 deg. 59' N, Long. 140 deg. 43' E. Snow cover 2 days by 50cm or deeper. Minimum temperature -18C. Flowers purple. Seed collected from a plant moved from Esan in Shirikishinai-cho, Todohokkemachi, where it was native. Cultivated. Seed.

479556. JH-297-82. Japan. US National Arboretum. 51319. Collected October 06, 1982. Near Lake Onuma, Onuma, Nanae-cho, Kameda-gun, Hokkaido. Lat. 41 deg. 59' N, Long. 140 deg. 43' E. Snow cover 2 days by 50cm or deeper. Minimum temperature -18C. Flowers purple. Seed collected from a plant moved from Esan in Shirikishinai-cho, Todohokkemachi where it was native. Cultivated. Cuttings.

479557. *Rhododendron yedoense* var. *poukhanense* (Lev.) Nakai  
(Ericaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-179-82. Japan. US National Arboretum. 51196. Collected September 27, 1982. Manabe Teien, Inada-machi, Obihiro-shi, Hokkaido. Lat. 42 deg. 55' N, Long. 143 deg. 12' E. Snow cover 16 days, 50cm or deeper. Minimum temperature -35C. Cultivated. Plants.

479558. *Rhus trichocarpa* Miq. (Anacardiaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-167-82. Japan. US National Arboretum. 51189. Collected September 25, 1982. SW slope of Mt Iwo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow 60cm per annum. Minimum temperature -25C. Shrub deciduous, large, 2.5-3m tall, multistemmed from base. Leaves turning scarlet in autumn.

479558-continued

Exocarp of fruit easily peeling off exposing white mesocarp. Growing on bushy, open, steep slope. Seed collected from one plant. (Handling seed may cause rash). Wild. Seed.

479559. *Rodgersia podophylla* A. Gray (Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-339-82. Japan. US National Arboretum. 51359. Collected October 09, 1982. Along Cirase, Yakeyama, Towada-machi, Aomori-ken, Honshu. 320m. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Plants collected in moist woodland. Wild. Plants.

479560. *Rosa acicularis* Lindl. (Rosaceae) Prickly rose.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-38-82. Japan. US National Arboretum. 51059. Collected September 15, 1982. Serpentine Garden, Hokkaido Univ., Teshio Fcrest, Toikanbetsu, Hokkaido. Lat. 44 deg. 53' N, Long. 141 deg. 55' E. Snow 1-2m per annum. Minimum temperature -17C. Shrub deciduous, 61cm tall. Canes strongly prickly. Leaves light green. Fruit orange-red, oblong, tapered. Seed from 1 plant. Cultivated from wild. Cultivated. Seed.

479561. *Rosa davurica* Fall. (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-37-82. Japan. US National Arboretum. 51057. Collected September 15, 1982. Arboretum, Teshio Forest, Toikanbetsu, Horonobe-cho, Teshio-gun, Hokkaido. Lat. 44 deg. 53' N, Long. 141 deg. 55' E. Snow 1-2m per annum. Minimum temperature -17C. Shrub deciduous, 2.5m tall. Canes strongly spiny, leafy stems with few spines.

479561-continued

Leaves light green above, glaucous beneath. Hips orange-red, lustrous, nearly globose. Seed from plant moved from the wild. Cultivated. Seed.

479562 TO 479563. *Rosa rugosa* Thunb. (Rosaceae) *Rugosa rose*.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479562. JH-8-82. Japan. US National Arboretum. 51028. Collected September 12, 1982. Near Wakkanai Airport, Wakkanai-shi, Kitami-gun, Hokkaido. Lat. 45 deg. 21' N, Long. 141 deg. 40' E. Snow cover 50cm or more for 67 days. Minimum temperature -19C. Shrub deciduous, 1-1.25m, rhizomatous, makes extensive colonies. Leaves lustrous dark green. Flowers deep rose-purple, fragrant. Hips deep orange-red, lustrous. Common on high beach (30.8m) by sea. Growing along hwy 238 with *Artemisia*, *Angelica*, *Miscanthus* and *Hemerocallis*. Wild. Seed.

479563. JH-108-82. Japan. US National Arboretum. 51130. Collected September 21, 1982. Sand dune near sea, Shunkunitai, Nemuro-shi, Nemuro Hanto, eastern Hokkaido. Lat. 43 deg. 18' N, Long. 145 deg. 36' E. Snow cover 50cm or deeper for 3 days. Minimum temperature -23C. Shrub deciduous, 30-90cm tall, rhizomatous, widely spreading. Leaves dark green above, glaucous beneath. Flowers deep rose-purple, sweet fragrance. Growing in sand dune, covering wide area, near the sea. Seed collected from many plants. Wild. Seed.

479564. *Salix integra* Thunb. (Salicaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-343-82. Japan. US National Arboretum. 51351. Collected October 10, 1982. Along Kendo #1 hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Wild. Cuttings.

479565. *Salix vulpina* Anderss. (Salicaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-319-82. Japan. US National Arboretum. 51338. Collected October 09, 1982. Along Kendo #1 hwy, Kayanokogen, Aomori-shi, Aomori-ken, Honshu. 530m. Lat. 40 deg. 40' N, Long. 140 deg. 49' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Growing at edge of woodland. Cuttings from 3 plants. Wild. Cuttings.

479566. *Sambucus sieboldiana* (Miq.) Graebn. (Caprifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-120-82. Japan. US National Arboretum. 51148. Collected September 22, 1982. Akkeshi Prefectural Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Shrub deciduous, 2-4m tall. Branches many, somewhat arching. Leaves dark green above, glaucous beneath. Fruit dark red. Growing on edge of woodland by roadside. Seed collected from 2 plants. Wild. Seed.

479567. *Saxifraga cortusifolia* Sieb. & Zucc. (Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-373-82. Japan. US National Arboretum. 51392. Collected October 12, 1982. Nihonkaki Corp, 184 Tshigami, Kawaguchi, Saitama-ken, Central Honshu. Flowers pink. Plant donated. Cultivated. Plants.

479568. *Saxifraga fortunei* Hook. f. (Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington,

479568-continued

D.C.

Received February 1983.

JH-381-82. Japan. US National Arboretum. 51400.  
Collected October 12, 1982. Kogara Co-operative Nursery,  
Bonsai Cen., Angyo, Saitama-ken, Central Honshu. Leaves  
red on back. Plants purchased. Local name 'Ura beni'.  
Cultivated. Plants.

479569. *Saxifraga fortunei* var. *incisolobata* (Engl. & Irmsh.) Nakai  
(Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-372-82. Japan. US National Arboretum. 51391.  
Collected October 12, 1982. Nihonkaki Corp, 184 Tshigami,  
Kawaguchi, Saitama-ken, Central Honshu. Dwarf form from  
Natchi, Yakayama Prefecture. Plants donated. Cultivated.  
Plants.

479570 TO 479571. *Schisandra chinensis* (Turcz.) H. Baill.  
(Schisandraceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479570. JH-60-82. Japan. US National Arboretum. 51079. Collected  
September 17, 1982. Abashiri National Forest, Urbar,  
Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper  
for 20 days. Minimum temperature -29C. Deciduous woody  
climber, 3-4.6m. Leaves bright green above, lighter  
beneath. Fruit pendulous, cherry red, fleshy. Twining  
over shrubbery in open situation along forest road,  
growing with *Aralia* in field no. 122. Seeds collected  
from several vines on a *Maackia* tree. Wild. Seed.

479571. JH-224-82. Japan. US National Arboretum. 51230.  
Collected September 29, 1982. Nunobe, Furano-shi,  
Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow  
cover 2.5m per annum. Minimum temperature -30C. Woody  
climber, 4.6m tall, climbing over low bushes and trees in  
woodland. Fruit coral-red, fleshy, in pendulous clusters.  
Seed collected from one plant. Wild. Seed.

479572. *Schizophragma hydrangeoides* Sieb. & Zucc. (Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-293-82. Japan. US National Arboretum. 51312. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 390m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Climber, deciduous woody, with holdfast, 6m tall. Bark smooth, dark brown. Leaves light green above, whitish beneath. Bracts pure white. Climbing a tree, above the stream. Wild. Seed.

479573. *Scutellaria* sp. (Lamiaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-380-82. Japan. US National Arboretum. 51399. Collected October 12, 1982. Kogara Co-operative Nursery, Bonsai Cen., Angyo, Saitama-ken, Central Honshu. Plant purchased. Local name Tatsunami-so. Cultivated. Plants.

479574. *Sedum* sp. (Crassulaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-84-82. Japan. US National Arboretum. 51103. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Perennial, 11-15cm tall. Rhizomatous. Leaves light green above. Growing in sunny situation, on open cliff on steep bank in forest with trees similar to JH-75. Twelve plants collected. Wild. Plants.

479575. *Skimmia japonica* Thunb. (Rutaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;



479575-continued

March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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JH-266-82. Japan. US National Arboretum. 51287.  
Collected October 05, 1982. Arboretum, Hokkaido Pref.  
Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat.  
41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2  
days by snow 50cm or deeper. Minimum temperature -18C.  
Cuttings from one female plant, 60cm tall. Cultivated.  
Cuttings.

479576. *Skimmia japonica* var. *intermedia* Komar. (Rutaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-80-82. Japan. US National Arboretum. 51099. Collected  
September 18, 1982. Shari National Forest, Utoro, Shari-  
machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N,  
Long. 145 deg. 0' E. Snow fall 2m per annum. Evergreen  
shrub, 30-60cm tall, from long creeping rhizome-like  
stems, green near tips. Leaves shiny above, light dull  
green beneath. Fruit shiny red. Growing in dense  
undergrowth on steep slope, with trees same as JH-75.  
Seed collected from several plants. Wild. Seed.

479577. *Skimmia japonica* var. *intermedia* f. *repens* (Nakai) Hara  
(Rutaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-21-82. Japan. US National Arboretum. 51040. Collected  
September 14, 1982. Dune Forest, Wakaisakanai, Toyotomi-  
machi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long.  
141 deg. 43' E. Shrub evergreen, 26-46cm tall, low  
stature, stems lithe. Leaves lustrous green, thick. Fruit  
bright orange red. Growing with *Viburnum furcatum*, *Abies*  
*sacchalinensis*, *Magnolia*, *Quercus mongolica*,  
*Acanthopanax*, *Kalopanax*. Seeds from several plants. Wild.  
Seed.

479578 TO 479583. *Sorbus alnifolia* (Sieb. & Zucc.) K. Koch (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479578. JH-51-82. Japan. US National Arboretum. 51069. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. Snow 1.5-2.5m per annum. Minimum temperature -35C. Tree deciduous, 6.1m tall, upright habit. Leaves dark green above, lighter beneath. Bark smooth, light gray. Fruit orange-lustrous. Growing with Sasa by field marker 320. Seed from several trees. Wild. Seed.
479579. JH-81-82. Japan. US National Arboretum. 51100. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Tree deciduous, 10m tall. Leaves bright green with impressed veins above. Fruit reddish. Growing in dense, bushy woods with trees similar to JH-75 on steep mountainside. Seed collected from one tree. Wild. Seed.
479580. JH-193-82. Japan. US National Arboretum. 51210. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree deciduous, 18m tall. Bark smooth, gray. Fruit turning reddish. Seed collected from 2 trees. Cultivated. Seed.
479581. JH-218-82. Japan. US National Arboretum. 51244. Collected September 29, 1982. Tairazawa, Furano-shi, Hokkaido. 350-400m. Snow fall 2.5 per annum. Minimum temperature -30C. Tree deciduous, 7.6m tall. Branches spreading. Leaves dark green above. Fruit turning reddish. Growing in woodland. Seed collected from one tree. Cultivated. Wild. Seed.
479582. JH-228-82. Japan. US National Arboretum. 51246. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Tree deciduous, 12m tall. Branches wide spreading, with reddish brown twigs. Bark smooth, light gray. Leaves dark green above, impressed veins. Fruit turning reddish. Growing in woodland. Cultivated. Wild. Seed.
479583. JH-306-82. Japan. US National Arboretum. 51327. Collected October 08, 1982. Tsuta Numa, Towada-shi,

479578 TO 479583-continued

Aomori-ken, Honshu. Lat 40 deg. 33' N, Long. 140 deg. 58' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Tree deciduous, 3.5-8m tall, divided into main trunks. Bark smooth, light gray. Leaves dark green above with impressed veins; paler with prominent veins beneath. Fruit bright red, glossy. Growing by edge of small lake in marsh. Seed collected from 2 plants. Cultivated. Wild. Seed.

479584 TO 479593. *Sorbus commixta* Hedl. (Rosaceae) Japanese mountain-ash.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479584. JH-55-82. Japan. US National Arboretum. 51073. Collected September 16, 1982. Hokkaido Univ., Uryu Forest, Tokuda (rd no. 40), Nayoro-shi, Hokkaido. Lat. 44 deg. 20' N, Long. 142 deg. 27' E. Snow cover 1.5-2.5m per annum. Minimum temperature -35C. Tree upright, 4.6m tall. Attractive orange-red berry. Plant originally was wild seedling moved from Univ. forest nearby. Seed from one tree. Cultivated. Seed.
479585. JH-56-82. Japan. US National Arboretum. 51074. Collected September 16, 1982. Hokkaido Univ., Uryu Forest, Tokuda (rd no. 40), Nayoro-shi, Hokkaido. Lat. 44 deg. 20' N, Long. 142 deg. 27' E. Snow cover 1.5-2.5m per annum. Minimum temperature -35C. Tree deciduous, 4.6m tall. Branches many, spreading from near base. Bark smooth, dark brown. Leaves bright green above. Fruit orange-red. Wild seedling moved from Univ. forest nearby. Cultivated. Seed.
479586. JH-71-82. Japan. US National Arboretum. 51090. Collected September 17, 1982. Abashiri National Forest, Urbari, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, small, 7.6m tall, multitrunked from base, upright branches. Bark smooth, dark brown. Leaves bright green above, glaucous beneath. Fruit bright orange. Abundant along roadside in woodland in field no. 119. Seed collected from one tree. Wild. Seed.
479587. JH-94-82. Japan. US National Arboretum. 51116. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Shrub deciduous, 4.6m

479584 TO 479593-continued

- tall, multitrunked from base, erect. Branches spreading. Leaves deep green above, glaucous beneath. Reddish petioles, dark brown shiny twigs, reddish resinous buds. Fruit globose, orange. Growing on open woodland on hillside with *Betula ermanii* & *Pinus pumila*. Seed collected from 2 trees. Wild. Seed.
479588. JH-125-82. Japan. US National Arboretum. 51143. Collected September 22, 1982. Akkeshi Prefectural Forest, Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. 70m. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow 40cm, deepest 1.3m. Minimum temperature -20C. Tree deciduous, 6m tall, multitrunked from base. Leaves bright green above, glaucous beneath. Fruit orange. Growing in mixed woodland in field 41. Seed collected from one tree. Wild. Seed.
479589. JH-161-82. Japan. US National Arboretum. 51183. Collected September 25, 1982. SW slope of Mt Iwo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow 60cm per annum. Minimum temperature -25C. Tree deciduous, or long shrub, 4.5-6m tall, multistemmed from base. Bark smooth, dark brown, somewhat lustrous. Leaves bright green above, pale beneath. Fruit orange-red to red, shiny, large. Growing in mixed woodland on steep, bushy, open slope. Seed collected from 2 plants. Wild. Seed.
479590. JH-162-82. Japan. US National Arboretum. 51184. Collected September 25, 1982. SW slope of Mt Iwo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow 60cm per annum. Minimum temperature -25C. Tree deciduous, or large shrub, 4.6-6.1m tall, multistemmed from base. Bark smooth, dark brown, somewhat lustrous. Leaves bright green above, pale beneath. Fruit orange-red to red, shiny. Growing on steep bushy open slope. Seed collected from 2 plants. Wild. Seed.
479591. JH-194-82. Japan. US National Arboretum. 51211. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree 5m tall. Seed collected from 2 trees. Cultivated. Seed.
479592. JH-212-82. Japan. US National Arboretum. 51235. Collected September 29, 1982. South slope of Mt Dairoku, Furano-shi, Hokkaido. 1250m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, large, 3.5-5m tall. Branches many. Leaves turning red in autumn. Fruit large, orange-red, glossy. Growing in open wooded slope with *Pinus pumila* and *Betula ermanii*. Seed collected from

479584 TO 479593-continued

several plants. Cultivated. Wild. Seed.

479593. Japan. US National Arboretum. 51424. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US Arboretum by M. Kawase. Collected in Ashibetsu-shi. Seed.

479594 TO 479595. *Sorbus matsumurana* (Makino) Koehne (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479594. JH-95-82. Japan. US National Arboretum. 51117. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Shrub deciduous, erect, 2-2.5m tall, multistemmed from base. Leaves dark green above, glaucous beneath; rachis reddish. Fruit bright red, nearly globose. Growing in open areas and mixed woodland with *Betula*, *Acer*, *Pinus* & *Sasa*. Seed collected from several plants. Wild. Seed.

479595. JH-210-82. Japan. US National Arboretum. 51233. Collected September 29, 1982. South slope of Mt Dairoku, Furano-shi, Hokkaido. 1330m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 1.8-2.5m tall, multitrunked from base, of low stature. Fruit red, lustrous. Growing in woodland on steep mountain slope. Seed collected from several plants. Wild. Seed.

479596 TO 479597. *Sorbus sambucifolia* (Cham. & Schltdl.) Roem. (Rosaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479596. JH-118-82. Japan. US National Arboretum. 51146. Collected September 22, 1982. Hichirippu, Hamanaka-machi, Akkeshi-gun, Hokkaido. Lat. 43 deg. 04' N, Long. 145 deg. 05' E. Snow 40cm, deepest 1.3m. Minimum temperature -20C. Shrub deciduous, 1.2-1.5m tall, multistemmed from base. Stems gray. Buds purplish, shiny. Leaflets lustrous above, yellowish green beneath. Fruit globose, deep red, lustrous. Seed collected from several plants transplanted

479596 TO 479597-continued

10 years ago from Nosapp Point (Tip of Nemuro Peninsula) where it was growing in wilderness. Cultivated. Seed.

479597. JH-208-82. Japan. US National Arboretum. 51231. Collected September 29, 1982. South slope of Mt Dairoku, Furano-shi, Hokkaido. 1300-1400m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 2.5m tall, multistemmed from base. Leaves turning reddish in autumn. Fruit orange-red, globose, strongly lustrous. Growing on open wooded steep mountain slopes. Seed collected from several plants. Wild. Seed.

479598. *Spiranthes sinensis* (Pers.) Ames (Orchidaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-11-82. Japan. US National Arboretum. 51027. Collected September 11, 1982. Togeshita near Rumoi-shi, Hokkaido. 342m. Lat. 43 deg. 53' N, Long. 141 deg. 47' E. Snow cover 50cm or more for 73 days. Minimum temperature -23C. Perennial from white fleshy tubers, strict habit. Leaves erect. Flowers rose. Grassy balks by rice paddy, full sun on open hillside. Wild. Plants.

479599. *Staphylea humalda* DC. (Staphyleaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-143-82. Japan. US National Arboretum. 51165. Collected September 23, 1982. East, 7km of Kushiro along hwy 44, Kushiro-shi, Hokkaido. Lat. 42 deg. 59' E, Long. 144 deg. 27' E. Snow cover 50cm or deeper for 6 days. Minimum temperature -28C. Shrub deciduous, 1.8-2.5m tall. Multitrunked from base. Leaves dark green above, lighter beneath. Fruit purplish on one side. Growing on edge of woodland. Seed collected from 2 plants. Wild. Seed.

479600 TO 479601. *Styrax japonicus* Sieb. & Zucc. (Styracaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development

479600 TO 479601-continued

Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479600. JH-260-82. Japan. US National Arboretum. 51280. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2 days by snow 50cm or deeper. Minimum temperature -18C. Shrub to small tree, deciduous, 4.6m tall, single trunked. Habit erect. Branches ascending. Bark smooth, light gray. Leaves dark green above, pale beneath. Plant originally growing in Yokotsudake where it was native. Seed collected from one plant. Cultivated. Seed.
479601. JH-280-82. Japan. US National Arboretum. 51281. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2 days by snow 50cm or deeper. Minimum temperature -18C. Same plant as JH-260-82. Scions collected. Cultivated. Scionwood.

479602 TO 479603. *Styrax obassia* Sieb. & Zucc. (Styracaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479602. JH-196-82. Japan. US National Arboretum. 51213. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yanabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Tree deciduous, 6m tall. Branches ascending. Bark smooth, dark brown. Leaves dark green above, light green beneath. Seed collected from 3 trees. Cultivated. Seed.
479603. JH-230-82. Japan. US National Arboretum. 51248. Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Tree deciduous, small, 6m tall, single trunk. Crown spreading. Branches angular. Bark shallowly grooved, light gray, becoming smooth on younger branches. Leaves light green above, whitish beneath, veins raised. Fruiting racemes pendulous. Growing in woodland. Wild. Seed.

479604. *Symplocos chinensis* var. *leucocarpa* (Nakai) Ohwi  
(*Symplocaceae*).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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JH-43-82. Japan. US National Arboretum. 51061. Collected  
September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri,  
Horokanai-cho, Uryu-gun, Hokkaido. 300m. Snow 1.5-2.5m  
per annum. Minimum temperature -35C. Shrub deciduous,  
1.8m, multistemmed from base. Leaves dull dark green  
above. Fruit sapphire blue, lustrous. Growing in open  
area along stream bank with *Sasa*, *Filipendula*, *Lysichiton*  
near Forest Field #402. Seed from single plant. Wild.  
Seed.

479605 TO 479606. *Syringa reticulata* (Bl.) Hara (*Oleaceae*) Lilac.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479605. JH-132-82. Japan. US National Arboretum. 51156.  
Collected September 22, 1982. Akkeshi Prefectural Forest,  
Bekambegyu, Akkeshi-machi, Akkeshi-gun, Hokkaido. Lat. 43  
deg. 06' N, Long. 145 deg. 0' E. Snow 40cm, deepest 1.3m.  
Minimum temperature -20C. Shrub deciduous, large, up to  
7m tall. Branches many, lustrous, strongly lenticellate.  
Leaves dark green above, impressed veins, lighter green  
beneath, shiny. Growing in low swampy place in woodland.  
Seed collected from several plants. Wild. Seed.

479606. JH-151-82. Japan. US National Arboretum. 51173.  
Collected September 24, 1982. SE, 3.2km of Lake Kusharo,  
Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 35'  
N, Long. 144 deg. 23' E. Snow 60cm per annum. Minimum  
temperature -25C. Tree deciduous, small, 4.6m tall,  
multistemmed from base. Leaves light green above. Growing  
in woodland. Seed collected from 2 plants. Wild. Seed.

479607 TO 479608. *Taxus cuspidata* Sieb. & Zucc. (*Taxaceae*) Japanese  
yew.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.



479607 TO 479608-continued  
Received February 1983.

479607. JH-169-82. Japan. US National Arboretum. 51111.  
Collected September 18, 1982. Forestry Headquarters  
Garden, Shari-machi, Shari-gun, Hokkaido. Lat. 43 deg.  
55' N, Long. 144 deg. 44' E. Snow cover 2m per annum.  
Seed collected in gardens. Plants transplanted from  
nearby mountains. Cultivated. Seed.

479608. JH-117-82. Japan. US National Arboretum. 51145. Akkeshi  
Pref. Forest, Hichirippu, Bekambegyu, and Kitanosawa,  
Akkeshi-gun. Tree evergreen, 7-9m tall. Branches  
spreading. Crown broad. Bark shredded, brown. Leaves  
lustrous green above, yellow green beneath. Seeds  
imbedded in a fleshy, coral red aril. Seed collected  
from several trees in 3 localities. Wild. Seed.

479609 TO 479610. *Taxus cuspidata* var. *luteobaccata* Miyabe & Tatew.  
(Taxaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479609. JH-250-82. Japan. US National Arboretum. 51268.  
Collected October 03, 1982. Botanic Garden, Hokkaido Univ.,  
Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg.  
22' E. Covered with snow for 55 days 50cm or deeper.  
Minimum temperature -24C. Shrub evergreen, spreading, 1.2-  
1.5m tall. Leaves dark green above, radiate. Seed  
embedded in yellowish, fleshy, aril. Seed collected from  
one plant. Cultivated. Seed.

479610. JH-251-82. Japan. US National Arboretum. 51269.  
Collected October 03, 1982. Botanic Garden, Hokkaido Univ.,  
Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg.  
22' E. Covered with snow for 55 days 50cm or deeper.  
Minimum temperature -24C. Same plant as JH-250-82.  
Cuttings taken from one plant. Cultivated. Cuttings.

479611. *Thermopsis lupinoides* (L.) Link (Fabaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

JH-110-82. Japan. US National Arboretum. 51132. Sand

479611-continued

dune near sea, Shunkunitai, Nemuro-shi, Nemuro Hanto, eastern Hokkaido. Lat. 43 deg. 18' N, Long. 145 deg. 36' E. Snow cover 50cm or deeper for 3 days. Minimum temperature -23C. Seed collected from several plants. Wild. Seed.

479612. *Thymus quinquecostatus* Celak. (Lamiaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-39-82. Japan. US National Arboretum. 51060. Collected September 15, 1982. Serpentine Garden, Hokkaido Univ., Teshio Forest, Toikanbetsu, Hokkaido. Lat. 44 deg. 53' N, Long. 141 deg. 55' E. Snow 1-2m per annum. Minimum temperature -17C. From wild source. Cuttings from single plant. Cultivated. Cuttings.

479613. *Tiarella polyphylla* D. Don (Saxifragaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-338-82. Japan. US National Arboretum. 51358. Collected October 09, 1982. Along Oirase, Yakeyama, Towada-nachi, Aomori-ken, Honshu. 320m. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Plants collected from wet woodland. Wild. Plants.

479614 TO 479617. *Tilia japonica* (Miq.) Simonk. (Tiliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479614. JH-48-82. Japan. US National Arboretum. 51066. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. Snow 1.5-2.5m per annum. Minimum temperature -35C. Tree deciduous, 20-21m tall. Branches spreading. Bark peeling in thin strips, light gray. Leaves dark green above. Common in woodland, growing by a service road with *Sasa* & *Betula* by field

479614 TO 479617-continued

marker 320. Seed collected from a single tree. Wild. Seed.

479615. JH-67-82. Japan. US National Arboretum. 51086. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Tree deciduous, erect, 19m tall. Crown broad. Bark tight, furrowed, gray. Leaves bright green above, blue green beneath. Common in mixed woodland with Cornus, Abies & Aralia in field 121. Seed from one tree. Wild. Seed.

479616. JH-318-82. Japan. US National Arboretum. 51337. Collected October 09, 1982. Along Kendo #1 Hwy, Kayanokogen, Aomori-shi, Aomori-ken, Honshu. 530m. Lat. 40 deg. 40' N, Long. 140 deg. 49' E. Snow 2-3m, 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Tree deciduous, 7.6m tall. Branches many, spreading, more or less globose habit, light brown lenticellate. Bark tight, light gray. Leaves dark green above, blue green beneath. Many specimen trees growing in a park. Wild. Seed.

479617. Japan. US National Arboretum. 51425. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US National Arboretum by M. Kawase. Collected in Rumoi-shi. Seed.

479618 TO 479620. *Tilia maximowicziana* Shiras. (Tiliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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479618. JH-3-82. Japan. US National Arboretum. 51022. Collected September 11, 1982. Togeshita near Rumoi-shi, Hokkaido. 342m. Lat. 43 deg. 53' N, Long. 141 deg. 47' E. Snow cover 50cm or more for 73 days. Minimum temperature -23C. Tree deciduous, to 7.6m. Leaves bright green above, silvery beneath. Growing on open NE hillside with Sasa, Acer and Alnus. Seeds from single tree. Wild. Seed.

479619. JH-147-82. Japan. US National Arboretum. 51169. Collected September 24, 1982. SE, 3.2km of Lake Kusharo, Teshikaga-machi, Kawakami-gun, Hokkaido. Lat. 43 deg. 35' N, Long. 144 deg. 23' E. Snow cover 60cm per annum. Minimum temperature -25C. Tree deciduous, upright, 14m tall. Bark furrowed, light gray. Leaves dark green above, light green beneath. Fruit pendulous, whitish. Growing in mixed woodland of Prunus, Vitis, Ulmus. Seed collected from one tree. Wild. Seed.

479618 TO 479620-continued

479620. Japan. US National Arboretum. 51426. Hokkaido (Federal) Forest Breeding Station, Hokkaido. Sent to US National Arboretum by M. Kawase. Collected in Tappu, Mikasa-shi. Seed.

479621. *Tofieldia nuda* Maxim. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-386-82. Japan. US National Arboretum. 51405. Collected October 14, 1982. Private Nursery, below shrine, Idzuru-Kam'on San, Mt. Idzuru, Honshu. Leaves low, grass like. Grows naturally in rocky places in the mountains. Plant purchased. Received as *T. nuda* var. *furusei*. Cultivated. Plants.

479622. *Trapa incisa* Sieb. & Zucc. (Trapaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-4-82. Japan. US National Arboretum. 51053. Collected September 15, 1982. Hokkaido Univ., Teshio Forest, Toikanbetsu, Horonobe-cho, Teshio-gun, Hokkaido. Lat. 44 deg. 53' N, Long. 141 deg. 55' E. Snow cover 1-2m per annum. Minimum temperature -17C. Aquatic, floating. Leaves deep green. Collected from pond behind guest quarters (near serpentine garden). Plants cultivated from a wild collection. Cultivated. Plants.

479623. *Tricyrtis formosana* Baker (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-369-82. Japan. US National Arboretum. 51388. Collected October 12, 1982. Nihonkaki Corp., 184 Tshigami, Kawaguchi, Saitama-ken, Central Honshu. Plants donated. Cultivated. Plants.

479624. *Tricyrtis* hybrid (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-355-82. Japan. US National Arboretum. 51374. Collected October 11, 1982. Mitsukashi Dept. Store, Muromachi, Nihomba-shi, Chud-ku, Tokyo. Plants purchased. Received as *Tricyrtis formosana* x *hirta*. Cultivated. Plants.

479625. *Tricyrtis nana* Yatabe (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

JH-370-82. Japan. US National Arboretum. 51389. Collected October 12, 1982. Nihonkaki Corp., 184 Tshigami, Kawaguchi, Saitama-ken, Central Honshu. Plants donated. Cultivated. Plants.

479626. *Trillium smallii* Maxim. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-30-82. Japan. US National Arboretum. 51051. Collected September 14, 1982. Kasai-Okuchi area, Hokkaido Univ., Teshio Fcrest, Horonobe-cho, Teshio-gun. 125m. Lat. 45 deg. 0' N, Long. 141 deg. 58' E. Snow cover 1-2m per annum. Minimum temperature -17C. Growing on moist bank. Wild. Plants.

479627. *Trillium tschonoskii* Maxim. (Liliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-241-82. Japan. US National Arboretum. 51259.

479627-continued

Collected October 01, 1982. Hokkaido Univ. Tomakomai Exp. Forest, Tomakomai-shi, Hokkaido. Lat. 42 deg. 38' N, Long. 141 deg. 39' E. Snow cover 40cm, ground freeze to 70cm. Minimum temperature -30C. Growing in woodland. Wild. Plants.

479628. *Tsuga diversifolia* (Maxim.) Masters (Pinaceae) Japanese hemlock.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-344-82. Japan. US National Arboretum. 51363. Collected October 10, 1982. 1324m. Lat. 40 deg. 37' N, Long. 140 deg. 56' E. Tree evergreen, 3-4.5m tall, gnarled and densely branched, often flat-topped. Bark rough, dark brown. Leaves lustrous green above, blue green beneath. Forms nearly pure stands. Growing near chair lift. Seed collected from several plants. Wild. Seed.

479629. *Typha latifolia* L. (Typhaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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JH-364-84. Japan. US National Arboretum. 51383. Collected October 12, 1982. Suzuk Wild Flower Garden, Angyo, Saitama-ken, Central Honshu. Variegated white. Plant purchased. Cultivated. Plants.

479630. *Ulmus* sp. (Ulmaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

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Japan. US National Arboretum. 51416. Hokkaido Univ. Bot. Garden, Sapporo-shi, Hokkaido. Sent to US National Arboretum by M. Kawase. Seed.

**479631. *Vaccinium praestans* Lamb. (Ericaceae).**

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
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JH-221-82. Japan. US National Arboretum. 51240. Collected September 29, 1982. South slope of Mt. Dairoku, Furano-shi, Hokkaido. 1100m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Sub-shrub deciduous, 5-7.7cm tall, rhizomatous with long creeping stems, gregarious. Fruit dark red, fleshy. Low ground creeper, covering fairly large areas. Seed collected from several plants. Wild. Seed.

**479632. *Vaccinium smallii* A. Gray (Ericaceae).**

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-200-82. Japan, US National Arboretum. 51217. Collected September 28, 1982. Arboretum, Tokyo Univ. Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 1.4m tall, multitrunked from base, makes a dense bush. Leaves turn red in autumn. Fruit nearly black, globose, fleshy, sour to taste. Seed collected from several plants. Cultivated. Seed.

**479633. *Vaccinium* sp. (Ericaceae).**

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-259-82. Japan. US National Arboretum. 51277. Collected October 03, 1982. Botanic Garden, Hokkaido Univ., Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg. 22' E. Covered with snow for 55 days, 50cm or deeper. Minimum temperature -24C. Shrub deciduous, up to 1 m tall, multistemmed from base. Stems smooth, green. Leaves dull green above, whitish beneath. Seed collected from one plant. Cultivated. Seed.

479634 TO 479635. *Viburnum dilatatum* Thunb. (Caprifoliaceae) Linden  
*viburnum*.

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

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479634. JH-199-82. Japan. US National Arboretum. 51216.  
Collected September 28, 1982. Arboretum, Tokyo Univ.  
Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg.  
14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum.  
Minimum temperature -30C. Shrubs 2-3m. Seed collected  
from several plants. Cultivated. Seed.

479635. JH-270-82. Japan. US National Arboretum. 51291.  
Collected October 05, 1982. Arboretum, Hokkaido Pref.  
Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat.  
41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2  
days by snow 50cm or deeper. Minimum temperature -18C.  
Shrub deciduous, multistemmed from base, 1.8-2.5m tall,  
makes a dense, round headed bush. Leaves dark green above  
with impressed veins, pale beneath. Fruit purplish-red,  
lustrous. Seed collected from 1 plant moved from Shiokubi  
in Toi-machi. Received as *V. dilatatum* f. *hispidum*.  
Cultivated. Seed.

479636 TO 479642. *Viburnum furcatum* Bl. ex Maxim. (Caprifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.;  
March, S.; Ohio Agricultural Research & Development  
Center; US National Arboretum; Wooster, Ohio; Washington,  
D.C.

Received February 1983.

479636. JH-6-82. Japan. US National Arboretum. 51025. Collected  
September 11, 1982. Togeshita near Rumoi-shi, Hokkaido.  
342m. Lat. 43 deg. 53' N, Long. 141 deg. 47' E. Snow  
cover 50cm or more for 73 days. Minimum temperature -23C.  
Shrub deciduous, 1.2-2m, multistemmed from base. Branches  
many. Leaves light green above, veins prominent below,  
fall leaves red. Fruit orange (red), turning black.  
Growing in open woodland on hillside. Seeds from several  
plants. Wild. Seed.

479637. JH-23-82. Japan. US National Arboretum. 51042. Collected  
September 14, 1982. Dune Forest, Wakasakanai, Toyotomi-  
machi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long.  
141 deg. 43' E. Shrub deciduous, 1.2-15m, spreading habit.  
Leaves light green, somewhat rugose. Fruit red lustrous,  
3 times larger than normal. Seeds collected from single  
plant. Wild. Seed.



479636 TO 479642-continued

479638. JH-27-82. Japan. US National Arboretum. 51045. Collected September 14, 1982. Dune Forest, Wakasakanai, Toyotomimachi, Teshio-gun, Hokkaido. Lat. 45 deg. 05' N, Long. 141 deg. 43' E. Shrub deciduous, 1.5m tall. Branches open, spreading. Leaves light green, somewhat rugose. Fruit red. Common in woodland. Seed from several plants. Wild. Seed.
479639. JH-44-82. Japan. US National Arboretum. 51062. Collected September 15, 1982. Hokkaido Univ., Uryu Forest, Moshiri, Horokanai-cho, Uryu-gun, Hokkaido. 295m. Snow cover 1.5-2.5m per annum. Minimum temperature -35C. Shrub deciduous, 1.5-1.8m tall. Habit open. Branches spreading. Leaves rugose, dull green but turning red in autumn. Common in mixed woodland near forest field no. 320. Seed from several trees. Wild. Seed.
479640. JH-213-82. Japan. US National Arboretum. 51236. Collected September 29, 1982. South slope of Mt. Dairoku, Furano-shi, Hokkaido. 1200m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Plant 2m tall. Seed collected from one plant. Wild. Seed.
479641. JH-274-82. Japan. US National Arboretum. 51296. Collected October 05, 1982. Onuma, Nanae-machi, Kameda-gun, Hokkaido. Lat. 41 deg. 57' N, Long. 140 deg. 42' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Shrub deciduous, 2m tall. Branches wide spreading, dark brown. Trunk bark smooth, light gray. Leaves light green above with impressed veins, rugose beneath. Fruit dark red, turning black. Growing in woodland. Seed collected from several plants. Wild. Seed.
479642. JH-324-82. Japan. US National Arboretum. 51343. Collected October 09, 1982. Along Kendo #1 hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Plants 3m tall. Seed collected from 2 plants. Wild. Seed.

479643. *Viburnum opulus* var. *calvescens* (Rehd.) Hara (Caprifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.  
Received February 1983.

JH-183-82. Japan. US National Arboretum. 51200.  
Collected September 28, 1982. Arboretum, Tokyo Univ.

479643-continued

Furano Forest, Yamabe, Furano-shi, Hokkaido. Lat. 43 deg. 14' N, Long. 142 deg. 24' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, multistemmed, 4.6m tall. Bark light gray. Leaves dull, dark green above. Fruit nearly globose, fleshy, dark red to purplish. Seed collected from one plant. Cultivated. Seed.

479644 TO 479646. *Viburnum wrightii* Mig. (Caprifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479644. JH-79-82. Japan. US National Arboretum. 51098. Collected September 18, 1982. Shari National Forest, Utoro, Shari-machi, Shari-gun, Hokkaido. 350m. Lat. 44 deg. 03' N, Long. 145 deg. 0' E. Snow fall 2m per annum. Shrub deciduous. Leaves light green above, light green beneath. Fruit fleshy, crimson. Growing on dense, bushy, steep mountain slope in woods with trees same as JH-75. Seed collected from several plants. Wild. Seed.

479645. JH-271-82. Japan. US National Arboretum. 51292. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Shrub deciduous, 1.2-1.5m tall, multistemmed from base. Habit erect. Leaves dark green above, pale beneath. Fruit purplish-red, large, lustrous in dense clusters. Seed collected from one tree moved from Gabino-machi in Hakodate-shi. Cultivated. Seed.

479646. JH-281-82. Japan. US National Arboretum. 51293. Collected October 05, 1982. Arboretum, Hokkaido Pref. Forest Exp Sta., Kikyo-machi, Hakodate-shi, Hokkaido. Lat. 41 deg. 49' N, Long. 140 deg. 48' E. Snow cover for 2 days by 50cm or deeper. Minimum temperature -18C. Plants same as JH-271-82. Cuttings collected. Cultivated. Cuttings.

479647. *Vitis coignetiae* Pulliat. (Vitaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479647-continued

JH-63-82. Japan. US National Arboretum. 51082. Collected September 17, 1982. Abashiri National Forest, Urbar, Abashiri-shi, Hokkaido. 230m. Snow cover 50cm or deeper for 20 days. Minimum temperature -29C. Climber woody, with strong tendrils, climbing over shrubs and trees, 3-4.6m tall. Leaves deep green above and rugulose, brownish beneath. Fruit turning purple. Growing in field no. 122. Wild. Seed.

479648 TO 479650. *Weigela hortensis* (Sieb. & Zucc.) K. Koch  
(Caprifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479648. JH-255-82. Japan. US National Arboretum. 51273. Collected October 03, 1982. Botanic Garden, Hokkaido Univ., Sapporo-shi, Hokkaido. Lat. 43 deg. 03' N, Long. 141 deg. 22' E. Snow cover for 55 days 50cm or deeper. Minimum temperature -24C. Shrub deciduous, 1.7-3m tall, multitrunked from base and suckering. Branches arching. Stems smooth, light gray. Leaves dark green above with impressed veins, whitish beneath. Seed collected from 2 plants. Cultivated. Seed.

479649. JH-290-82. Japan. US National Arboretum. 51309. Collected October 06, 1982. Mori National Forest, Akaigawa, Mori-machi, Kayabe-gun, Hokkaido. 390m. Lat. 42 deg. 0' N, Long. 140 deg. 39' E. Snow cover for 2 days 50cm or deeper. Minimum temperature -18C. Shrub deciduous, 1.5-1.8m tall, multitrunked from base. Branches arching. Water shoots dark brown. Leaves above with impressed veins, strongly raised beneath. Common on open slope. Seed collected from several plants. Wild. Seed.

479650. JH-325-82. Japan. US National Arboretum. 51344. Collected October 09, 1982. Along Kendo #1 Hwy, Kansuizawa, Aomori-shi, Aomori-ken, Honshu. 730m. Lat. 40 deg. 39' N, Long. 140 deg. 50' E. Snow 2-3m; 58 days covered by snow 50cm or deeper. Minimum temperature -20C. Shrub deciduous, 1.8-2.1m tall, multitrunked from base. Branches arching. Leaves dark green above with impressed veins, lighter beneath and rugose. Growing in open woodland. Seed collected from 2 plants. Wild. Seed.

479651 TO 479652. *Weigela middendorffiana* (Carr.) K. Koch  
(Caprifoliaceae).

From Japan. Collected by Kawase, M.; Nielsen, D.; Meyer, F.; March, S.; Ohio Agricultural Research & Development

**479651 TO 479652-continued**

Center; US National Arboretum; Wooster, Ohio; Washington, D.C.

Received February 1983.

479651. JH-97-82. Japan. US National Arboretum. 51119. Collected September 19, 1982. S of hwy 344, E of pass toward Lake Rausu, Rausu-cho, Menashi-gun, Hokkaido. 675m. Lat. 44 deg. 03' N, Long. 145 deg. 10' E. Snow cover 1.5m per annum. Minimum temperature -20C. Shrub deciduous, 1-1.5m tall. Branches open. Stems gray. Leaves dark green above, lighter beneath. Growing in mixed wood along streams and margins of pond in open sunny situations. Seed collected from several plants. Wild. Seed.

479652. JH-216-82. Japan. US National Arboretum. 51239. Collected September 29, 1982. South slope of Mt. Dairoku, Furano-shi, Hokkaido. 1100m. Lat. 43 deg. 36' N, Long. 144 deg. 26' E. Snow cover 2.5m per annum. Minimum temperature -30C. Shrub deciduous, 1 m tall, multistemmed from base. Growing on open wooded slopes. Seed collected from several plants. Wild. Seed.

**479653 TO 479659. Avena sativa L. (Poaceae) Common oat.**

From South Africa. Donated by Kilpatrick, R.A.; Small Grain Centre, Grain Crops Research Institute, Department of Agriculture; Bethlehem 9700.  
Received September 1983.

479653. S.A. 1477. Witteberg (Cayuse). South Africa. Cultivar. Seed.

479654. S.A. 1478. Anita. South Africa. Cultivar. Seed.

479655. S.A. 1513. Overberg. South Africa. Cultivar. Seed.

479656. S.A. 1514. Perdeberg. South Africa. Cultivar. Seed.

479657. S.A. 2524. Swartberg. South Africa. Cultivar. Seed.

479658. S.A. 2525. Potberg. South Africa. Cultivar. Seed.

479659. S.A. 2526. Boet Bender. South Africa. Cultivar. Seed.

**479660 TO 479703. Triticum aestivum L. (Poaceae) Common wheat.**

From South Africa. Donated by Kilpatrick, R.A.; Small Grain Centre, Grain Crops Research Institute, Department of Agriculture; Bethlehem 9700.  
Received September 1983.

479660 TO 479703-continued

479660. S.A. 641. Wit Wolkoring. South Africa. Cultivar. Seed.  
479661. S.A. 643. Swartbaard. South Africa. Cultivar. Seed.  
479662. S.A. 645. Novenka. South Africa. Cultivar. Seed.  
479663. S.A. 653. Rooi Egipties. South Africa. Cultivar. Seed.  
479664. S.A. 660. Tcbari. South Africa. Cultivar. Seed.  
479665. S.A. 1327. Zaragoza. South Africa. Cultivar. Seed.  
479666. S.A. 1331. SST 23. South Africa. Cultivar. Seed.  
479667. S.A. 1335. Janitor. South Africa. Cultivar. Seed.  
479668. S.A. 1338. Wilge. South Africa. Cultivar. Seed.  
479669. S.A. 1345. Shaski. South Africa. Cultivar. Seed.  
479670. S.A. 1360. Barta. South Africa. Cultivar. Seed.  
479671. S.A. 1362. Bella. South Africa. Cultivar. Seed.  
479672. S.A. 1368. Gouritz. South Africa. Cultivar. Seed.  
479673. S.A. 1562. Rooi Stormberg. South Africa. Cultivar. Seed.  
479674. S.A. 1563. Rooi Indies. South Africa. Cultivar. Seed.  
479675. S.A. 1567. Wit Wol. South Africa. Cultivar. Seed.  
479676. S.A. 1633. Irvin. South Africa. Cultivar. Seed.  
479677. S.A. 1983. Unie 57. South Africa. Cultivar. Seed.  
479678. S.A. 1986. Benita. South Africa. Cultivar. Seed.  
479679. S.A. 2037. Witspitskop. South Africa. Cultivar. Seed.  
479680. S.A. 2306. Tosca. South Africa. Cultivar. Seed.  
479681. S.A. 2545. Hi Muti. South Africa. Cultivar. Seed.  
479682. S.A. 2550. Dipka. South Africa. Cultivar. Seed.  
479683. S.A. 2557. Barbriet. South Africa. Cultivar. Seed.  
479684. S.A. 2558. Basoeto-Koring. South Africa. Cultivar. Seed.  
479685. S.A. 2560. Bokveld. South Africa. Cultivar. Seed.

479660 TO 479703-continued

479686. S.A. 2562. Caledon. South Africa. Cultivar. Seed.  
479687. S.A. 2566. Early Spring. South Africa. Spring Annual.  
Cultivar. Seed.  
479688. S.A. 2567. Elan. South Africa. Cultivar. Seed.  
479689. S.A. 2568. Enslin. South Africa. Cultivar. Seed.  
479690. S.A. 2569. Falcon. South Africa. Cultivar. Seed.  
479691. S.A. 2572. Jonger. South Africa. Cultivar. Seed.  
479692. S.A. 2573. K 20. South Africa. Cultivar. Seed.  
479693. S.A. 2578. Kleinkoring. South Africa. Cultivar. Seed.  
479694. S.A. 2584. Lat Kasarwali. South Africa. Cultivar. Seed.  
479695. S.A. 2585. Lee Mida. South Africa. Cultivar. Seed.  
479696. S.A. 2589. Magudzi. South Africa. Cultivar. Seed.  
479697. S.A. 2591. Mashandige. South Africa. Cultivar. Seed.  
479698. S.A. 2595. Niomane. South Africa. Cultivar. Seed.  
479699. S.A. 2598. Ry 1. South Africa. Cultivar. Seed.  
479700. S.A. 2599. Ry 2. South Africa. Cultivar. Seed.  
479701. S.A. 2600. Ry 3. South Africa. Cultivar. Seed.  
479702. S.A. 2601. Saber. South Africa. Cultivar. Seed.  
479703. S.A. 2603. Stormberg. South Africa. Cultivar. Seed.

479704. *Citrullus lanatus* (Thunb.) Matsum. & Nakai (Cucurbitaceae)  
Watermelon.

From United States. Donated by Melvin, W.H.; Fruitland, Maryland.  
Received September 1983.

Blue Frost. United States. Plants disease tolerant,  
maturity about 90 days. Fruit to 13.6kg, oblong, blue  
frosted appearance. Rind thin, tough. Selected over  
period of years for uniformity. Cultivar. Seed.

479705. *Magnolia* hybrid (Magnoliaceae).

From United States. Donated by National Arboretum, U.S.

**479705-continued**

Department of Agriculture; Washington, D.C.  
Received August 1983.

NA 28352-1. 'Spectrum'. United States. *M. liliflora* cv. 'Nigra' x *M. sprengeri* cv. 'Diva'. Plant upright, strong, deciduous. Branches stout. Flowers red-purple, produced in early spring. Sister seedling of 'Galaxy', not as hardy. Adaptable to a wide range of soil conditions. Tree. Cultivar. Plants.

**479706. *Magnolia virginiana* var. *australis* Sargent (Magnoliaceae).**

From United States. Donated by National Arboretum, U.S.  
Department of Agriculture; Washington, D.C.  
Received August 1983.

NA 31021-1. 'Satelite'. United States. Tennessee. Plants upright, single-stemmed, evergreen to semi-evergreen. Crown full. Flowers fragrant, white, produced continuously through May and June in Washington D.C. Cuttings root easily, young plants vigorous. More cold hardy than other trees of this variety. Tree. Cultivar. Plants.

**479707 TO 479708. *Platanus x acerifolia* (Ait.) Willd. (Platanaceae).**

From United States. Donated by National Arboretum, U.S.  
Department of Agriculture; Washington, D.C.  
Received August 1983.

479707. NA 36539. 'Columbia'. *P. orientalis* (Turkey) x *P. occidentalis* (Maryland). Vigorous, single-stemmed, to 20m tall. Leaves distinctly 5-lobed. Fruit balls generally 2 or 3 per stalk, occasionally single or in 4's. Resistant to sycamore anthracnose disease and to trunk decay caused by wounds. Tree. Cultivar. Plants.

479708. NA 36537. 'Liberty'. *P. orientalis* (Turkey) x *P. occidentalis* (Maryland). Vigorous, single-stemmed, to 20m tall. Leaves remotely 5-lobed. Fruit balls generally 1 or 2 per stalk, sessile with short distance between balls. Resistant to sycamore anthracnose disease and to trunk decay caused by wounds. Tree. Cultivar. Plants.

**479709 TO 479743. *Glycine max* (L.) Merr. (Fabaceae) Soybean.**

From China, Peoples Repub of. Donated by Jilin Academy of Agricultural Sciences; Gongzhuling, Jilin Province.  
Received through U.S. Delegation to PRC/USA Soybean Symposium of Changchun, July 1983. Code numbers refer to

479709 TO 479743-continued  
Conservation designations.  
Received October 1983.

- 479709. GD 1882. Fengshou No. 1. China, Peoples Repub of. Heilongjiang Province. Cultivar. Seed.
- 479710. GD 2584. Hefeng No. 4. China, Peoples Repub of. Heilongjiang Province. Cultivar. Seed.
- 479711. GD 3001. Antuheido. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479712. GD 2982. Antuxiaoheidou. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479713. GD 3229. Baihuacuo. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479714. GD 1252. Baihuacuozi. China, Peoples Repub of. Jilin Province. Also see PI 467307. Cultivar. Seed.
- 479715. GD 2762. Beiliang No. 8. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479716. GD 2758. Beiliang No. 11. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479717. GD 3210. Bodigao. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479718. GD 1410. Caizhongpu. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479719. GD 3013. Changbaixiaoyoudou. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479720. GD 3241. Dahuangdou. China, Peoples Repub of. Jilin Province. Also see PI 464878. Cultivar. Seed.
- 479721. GD 3016. Helongdadou. China, Peoples Repub of. Jilin Province. Also see PI 415072. Cultivar. Seed.
- 479722. GD 2874. Huaixuan No. 1. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479723. GD 3000. Huinanniumaohuang. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479724. GD 2983. Huinanpingdingxiang. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
- 479725. GD 3213. Huitiejia. China, Peoples Repub of. Jilin Province. Cultivar. Seed.



479709 TO 479743-continued

479726. GD 2980. Jiaohetianedan. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479727. GD 3233. Jinyuan No. 30. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479728. GD 2985. Liuhedaheidou. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479729. GD 3247. Niumaohuang. China, Peoples Repub of. Jilin Province. Also see PI 391597. Cultivar. Seed.
479730. GD 2954. Niushidou. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479731. GD 1504. Pingdingsi. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479732. GD 3231. Pingdingxiang. China, Peoples Repub of. Jilin Province. Also see PI 467328 and PI 467329. Cultivar. Seed.
479733. GD 1511. Shuilihong. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479734. GD 1485. Silihuang. China, Peoples Repub of. Jilin Province. Also see PI 437700 and PI 464885. Cultivar. Seed.
479735. GD 2828. Silihuang. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479736. GD 1424. Sulanduludou. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479737. GD 1243. Suoyiling. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479738. GD 2979. Wangqingqingdou. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479739. GD 1540. Xiaobaidou. China, Peoples Repub of. Jilin Province. Also see PI 437704. Cultivar. Seed.
479740. GD 3232. Xiaohuangke. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479741. GD 1233. Xiaoyangdou. China, Peoples Repub of. Jilin Province. Cultivar. Seed.
479742. GD 2848. Zhongsheng No. 1. China, Peoples Repub of. Jilin Province. Cultivar. Seed.

479709 TO 479743-continued

479743. GD 2953. Zhuyandou. China, Peoples Repub of. Jilin Province. Cultivar. Seed.

479744 TO 479753. *Glycine soja* Sieb. & Zucc. (Fabaceae) Wild soybean.

From China, Peoples Repub of. Donated by Jilin Academy of Agricultural Sciences; Gongzhuling, Jilin Province.  
Received through U.S. Delegation to PRC/USA Soybean Symposium of Changchun, July 1983. Code numbers refer to Conservation designations.  
Received October 1983.

479744. GD 50003-2. China, Peoples Repub of. Wild. Seed.

479745. GD 50029-2. China, Peoples Repub of. Wild. Seed.

479746. GD 50062. China, Peoples Repub of. Wild. Seed.

479747. GD 50093-1. China, Peoples Repub of. Wild. Seed.

479748. GD 50107-3. China, Peoples Repub of. Wild. Seed.

479749. GD 50326-2. China, Peoples Repub of. Wild. Seed.

479750. GD 50344. China, Peoples Repub of. Wild. Seed.

479751. GD 50351-1. China, Peoples Repub of. Wild. Seed.

479752. GD 50388-2. China, Peoples Repub of. Wild. Seed.

479753. GD 50396-1. China, Peoples Repub of. Wild. Seed.

479754 TO 479756. *Glycine max* (L.) Merr. (Fabaceae) Soybean.

From China, Peoples Repub of. Donated by Hejiang Agricultural Research Institute; Jiamusi, Heilongjiang Province.  
Received through R.I. Bernard, Northern Soybean Collection, USDA-ARS, Univ. of Ill., Urbana.  
Received October 1983.

479754. Hefeng 22. China, Peoples Repub of. Cultivar. Seed.

479755. Hefeng 23. China, Peoples Repub of. Cultivar. Seed.

479756. Hejiao 6. China, Peoples Repub of. Cultivar. Seed.

479757 TO 479759. *Glycine max* (L.) Merr. (Fabaceae) Soybean.

From China, Peoples Repub of. Donated by Mudanjiang Agricultural

**479757 TO 479759-continued**

Research Institute; Mudanjiang, Heilongjiang Province.  
Received through R.I. Bernard, Northern Soybean  
Collection, USDA-ARS, Univ. of Ill., Urbana.  
Received October 1983.

479757. Mufeng 5. China, Peoples Repub of. Cultivar. Seed.

479758. Mufu 80-3125. China, Peoples Repub of. Developed by  
radiation breeding. Cultivar. Seed.

479759. Mufu 81-4220. China, Peoples Repub of. Developed by  
radiation breeding. Cultivar. Seed.

**479760 TO 479766. Glycine max (L.) Merr. (Fabaceae) Soybean.**

From China, Peoples Repub of. Donated by Heilongjiang Academy of  
Agricultural Sciences; Harbin, Heilongjiang Province.  
Received through R.I. Bernard, Northern Soybean  
Collection, USDA-ARS, Univ. of Ill., Urbana.  
Received October 1983.

479760. Fengshou 12. China, Peoples Repub of. Cultivar. Seed.

479761. Heihe 3. China, Peoples Repub of. Cultivar. Seed.

479762. Heinong 4. China, Peoples Repub of. Cultivar. Seed.

479763. Heinong 10. China, Peoples Repub of. Cultivar. Seed.

479764. Heinong 11. China, Peoples Repub of. Cultivar. Seed.

479765. Heinong 16. China, Peoples Repub of. Cultivar. Seed.

479766. Heinong 26. China, Peoples Repub of. Cultivar. Seed.

**479767 TO 479769. Glycine soja Sieb. & Zucc. (Fabaceae) Wild soybean.**

From China, Peoples Repub of. Donated by Heilongjiang Academy of  
Agricultural Sciences; Harbin, Heilongjiang Province.  
Received through R.I. Bernard, Northern Soybean  
Collection, USDA-ARS, Univ. of Ill., Urbana.  
Received October 1983.

479767. Long 79-1809. China, Peoples Repub of. Wild. Seed.

479768. Long 79-3313-1. China, Peoples Repub of. Wild. Seed.

479769. Long 79-5801. China, Peoples Repub of. Wild. Seed.

479770. *Calopogonium caeruleum* (Benth.) Hensl. (Fabaceae).

From Fiji. Donated by Animal Husbandry, Koronivia Research Station, Ministry of Agriculture and Fisheries; Nausori. Received August 1983.

Fiji. Seed.

479771. *Desmodium adscendens* (Sw.) DC. (Fabaceae) Beggarweed.

From Fiji. Donated by Animal Husbandry, Koronivia Research Station, Ministry of Agriculture and Fisheries; Nausori. Received August 1983.

Fiji. Received as *D. ovalifolium*. Seed.

479772. *Desmodium heterophyllum* (Willd.) DC. (Fabaceae).

From Fiji. Donated by Animal Husbandry, Koronivia Research Station, Ministry of Agriculture and Fisheries; Nausori. Received August 1983.

Fiji. Plants prostrate, strongly stoloniferous, vigorous. Roots formed freely from nodes of stolons and lower aerial stems. Flowers small, pink. Pods 3-6 jointed. Seeds yellow, turning dark brown with age. Rhizobial bacteria (QA.982) needed for sowing. Cultivated. Seed.

479773 TO 479774. *Lycopersicon esculentum* Mill. (Solanaceae) Tomato.

From Brazil. Donated by Da Costa, C.; University of Sao Paulo; Piracicaba. Received September 1983.

479773. IPA 1. Brazil. Developed under high temperature conditions. Fruit Roma type. Seed from 1981 increase at Fremont, Ohio. Cultivar. Seed.

479774. IPA 2. Brazil. Developed under high temperature conditions. Fruit Roma type. Seed from 1981 increase at Fremont, Ohio. Cultivar. Seed.

479775. *Lycopersicon esculentum* Mill. (Solanaceae) Tomato.

From Sweden. Donated by Weibulls; Landskrona. Received through O. Jahn, USDA-ARS, Northwest Plant Germplasm Repository, Corvallis, Oregon. Received September 1983.

'Ida'. Sweden. Leading cultivar for greenhouse

479775-continued

production in Scandinavian countries. Cultivar. Seed.

479776. *Trigonella foenum-graecum* L. (Fabaceae) Fenugreek.

From Egypt. Donated by Naguib, K.; Food and Dairy Research Laboratory, National Research Center; Cairo. Received through H.R. Shuyler, Agency for International Development, Washington, D.C. Received October 1983.

Egypt. Cultivated. Seed.

479777 TO 479782. *Triticum dicoccoides* (Koern. ex Asch. & Graebn.) Aaronsohn (Poaceae) Wild emmer.

From Israel. Donated by Nevo, E.; Institute of Evolution, University of Haifa; Mount Carmel, Haifa 31 999. Received October 1983.

479777. B-7. Israel. Yehudiyya. Wild. Seed.

479778. H-5. Israel. Tabigha. Wild. Seed.

479779. I-2. Israel. Bat Shelomo. Wild. Seed.

479780. L-40. Israel. Gilboa. Wild. Seed.

479781. L-43. Israel. Gilboa. Wild. Seed.

479782. M-13. Israel. Kokhav Hashahar. Wild. Seed.

479783 TO 479908. *Triticum aestivum* L. (Poaceae) Common wheat.

From Italy. Donated by Istituto del Germoplasma, Consiglio Nazionale delle Ricerche; 70126 Bari. Received June 1983.

479783. MG 31013. Ethiopia. Latitude: 09 deg 09  $\mu$  N; Longitude: 038 deg 26  $\mu$  E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awnless. Seed.

479784. MG 31041. Ethiopia. Latitude: 09 deg 13  $\mu$  N; Longitude: 038 deg 25  $\mu$  E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awnless. Seed.

479785. MG 31089. Ethiopia. Latitude: 09 deg 13  $\mu$  N; Longitude: 038 deg 33  $\mu$  E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awnless. Seed.

479786. MG 31124. Ethiopia. Latitude: 09 deg 12  $\mu$  N; Longitude:

479783 TO 479908-continued

- 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awnless. Seed.
479787. MG 31126. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
479788. MG 31131. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479789. MG 31132. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479790. MG 31133. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479791. MG 31134. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479792. MG 31135. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479793. MG 31136. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479794. MG 31137. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479795. MG 31140. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479796. MG 31141. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479797. MG 31149. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479798. MG 31150. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 38 m E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awnless. Seed.
479799. MG 31200. Ethiopia. Latitude: 09 deg 38 m N; Longitude: 039 deg 22 m E. Sel. from IDG 986. Collected December 07,

479783 TO 479908-continued

1973. 2720m. Spikes awnless. Local name Sindi. Seed.
479800. MG 31218. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awnless. Local name Sindi. Seed.
479801. MG 31258. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awnless. Local name Sindi. Seed.
479802. MG 31277. Ethiopia. Latitude: 09 deg 03 m N; Longitude: 038 deg 33 m E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awnless. Seed.
479803. MG 31278. Ethiopia. Latitude: 09 deg 03 m N; Longitude: 038 deg 33 m E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awnless. Seed.
479804. MG 31307. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.
479805. MG 31308. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.
479806. MG 31309. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.
479807. MG 31310. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.
479808. MG 31311. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.
479809. MG 31312. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.
479810. MG 31313. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.
479811. MG 31314. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.
479812. MG 31321. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awnless. Local name Sindi. Seed.

479783 TO 479908-continued

479813. MG 31327. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479814. MG 31328. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479815. MG 31329. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479816. MG 31330. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479817. MG 31331. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479818. MG 31332. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479819. MG 31333. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479820. MG 31334. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479821. MG 31335. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479822. MG 31336. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479823. MG 31337. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479824. MG 31339. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479825. MG 31340. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479826. MG 31341. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479827. MG 31342. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479828. MG 31343. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479829. MG 31348. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479830. MG 31349. Ethiopia. Sel. from IDG 1959. Collected



479783 TO 479908-continued

- December 10, 1973. 2180m. Spikes awnless. Seed.
479831. MG 31350. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479832. MG 31352. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479833. MG 31353. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479834. MG 31354. Ethiopia. Sel. from IDG 1960. Collected December 10, 1973. 2180m. Spikes awnless. Seed.
479835. MG 31369. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479836. MG 31370. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479837. MG 31371. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479838. MG 31372. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479839. MG 31379. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479840. MG 31380. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479841. MG 31381. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479842. MG 31382. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479843. MG 31383. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awnless. Seed.
479844. MG 31396. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awnless. Seed.
479845. MG 31397. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awnless. Seed.
479846. MG 31409. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awnless. Seed.
479847. MG 31412. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.

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479848. MG 31413. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479849. MG 31414. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479850. MG 31415. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479851. MG 31416. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479852. MG 31417. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479853. MG 31418. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479854. MG 31419. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479855. MG 31420. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479856. MG 31421. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479857. MG 31422. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479858. MG 31423. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479859. MG 31424. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479860. MG 31425. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479861. MG 31426. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479862. MG 31433. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479863. MG 31434. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479864. MG 31435. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479865. MG 31436. Ethiopia. Sel. from IDG 1988. Collected

479783 TO 479908-continued

- December 12, 1973. 1620m. Spikes awnless. Seed.
479866. MG 31437. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479867. MG 31438. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479868. MG 31439. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479869. MG 31440. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479870. MG 31441. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479871. MG 31442. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479872. MG 31445. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479873. MG 31446. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awnless. Seed.
479874. MG 31447. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479875. MG 31449. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479876. MG 31450. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479877. MG 31451. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479878. MG 31456. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479879. MG 31457. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479880. MG 31458. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479881. MG 31459. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479882. MG 31460. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.

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479883. MG 31461. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479884. MG 31483. Ethiopia. Sel. from IDG 1989. Collected December 12, 1973. 2710m. Spikes awnless. Seed.
479885. MG 31523. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awnless. Local name Sprimo. Seed.
479886. MG 31526. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awnless. Local name Sprimo. Seed.
479887. MG 31527. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awnless. Local name Sprimo. Seed.
479888. MG 31528. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awnless. Local name Sprimo. Seed.
479889. MG 31532. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awnless. Local name Sprimo. Seed.
479890. MG 31533. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awnless. Local name Sprimo. Seed.
479891. MG 31591. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awnless. Local name Soprino. Seed.
479892. MG 31601. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awnless. Local name Soprino. Seed.
479893. MG 31602. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479894. MG 31603. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479895. MG 31604. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479896. MG 31605. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479897. MG 31606. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.

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479898. MG 31607. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479899. MG 31608. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479900. MG 31609. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479901. MG 31613. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479902. MG 31614. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479903. MG 31615. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479904. MG 31616. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479905. MG 31617. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479906. MG 31619. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479907. MG 31620. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnless. Seed.
479908. MG 31639. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awnless. Local name Hollande. Seed.

479909 TO 480470. *Triticum turgidum* L. (Poaceae) Poulard wheat.

From Italy. Donated by Istituto del Germoplasma Consiglio Nazionale delle Ricerche; 70126 Bari.  
Received June 1983.

479909. MG 31000. Ethiopia. Latitude: 09 deg 09 m N; Longitude: 038 deg 26 m E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479910. MG 31001. Ethiopia. Latitude: 09 deg 09 m N; Longitude: 038 deg 26 m E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479911. MG 31002. Ethiopia. Latitude: 09 deg 09 m N; Longitude: 038 deg 26 m E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.

479909 TO 480470-continued

479912. MG 31003. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479913. MG 31004. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479914. MG 31005. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479915. MG 31006. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479916. MG 31007. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479917. MG 31008. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479918. MG 31009. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479919. MG 31010. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479920. MG 31011. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479921. MG 31012. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479922. MG 31014. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479923. MG 31015. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479924. MG 31016. Ethiopia. Latitude: 09 deg 09  $\text{N}$ ; Longitude: 038 deg 26  $\text{E}$ . Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.

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479925. MG 31017. Ethiopia. Latitude: 09 deg 09 m N; Longitude: 038 deg 26 m E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479926. MG 31018. Ethiopia. Latitude: 09 deg 09 m N; Longitude: 038 deg 26 m E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479927. MG 31019. Ethiopia. Latitude: 09 deg 09 m N; Longitude: 038 deg 26 m E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479928. MG 31020. Ethiopia. Latitude: 09 deg 09 m N; Longitude: 038 deg 26 m E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479929. MG 31021. Ethiopia. Latitude: 09 deg 09 m N; Longitude: 038 deg 26 m E. Sel. from IDG 220. Collected December 06, 1973. 2700m. Spikes awned. Seed.
479930. MG 31022. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479931. MG 31023. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479932. MG 31024. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479933. MG 31025. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479934. MG 31026. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479935. MG 31027. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479936. MG 31028. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479937. MG 31029. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.

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479938. MG 31030. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479939. MG 31031. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479940. MG 31032. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479941. MG 31033. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479942. MG 31034. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479943. MG 31035. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479944. MG 31036. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479945. MG 31037. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479946. MG 31038. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479947. MG 31039. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479948. MG 31040. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479949. MG 31042. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479950. MG 31043. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 25 n E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.



479909 TO 480470-continued

479951. MG 31044. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479952. MG 31045. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479953. MG 31046. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479954. MG 31047. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479955. MG 31048. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479956. MG 31049. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 25 m E. Sel. from IDG 222. Collected December 06, 1973. 2720m. Spikes awned. Seed.
479957. MG 31050. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479958. MG 31051. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479959. MG 31052. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479960. MG 31053. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479961. MG 31054. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479962. MG 31055. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479963. MG 31056. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.

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479964. MG 31057. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479965. MG 31058. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479966. MG 31059. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479967. MG 31060. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479968. MG 31061. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479969. MG 31062. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 36 m E. Sel. from IDG 224. Collected December 07, 1973. 2440m. Spikes awned. Seed.
479970. MG 31063. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479971. MG 31064. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479972. MG 31065. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479973. MG 31066. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479974. MG 31068. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479975. MG 31070. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479976. MG 31072. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.

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479977. MG 31073. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479978. MG 31074. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479979. MG 31077. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479980. MG 31078. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479981. MG 31079. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479982. MG 31080. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479983. MG 31081. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479984. MG 31082. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479985. MG 31083. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479986. MG 31084. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479987. MG 31085. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479988. MG 31086. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479989. MG 31087. Ethiopia. Latitude: 09 deg 13 m N; Longitude: 038 deg 33 m E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.

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479990. MG 31088. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479991. MG 31090. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479992. MG 31091. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479993. MG 31092. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479994. MG 31093. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479995. MG 31094. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479996. MG 31095. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479997. MG 31096. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479998. MG 31097. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
479999. MG 31098. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
480000. MG 31099. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
480001. MG 31100. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.
480002. MG 31101. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 227. Collected December 07, 1973. 2470m. Spikes awned. Seed.

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480003. MG 31102. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480004. MG 31103. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480005. MG 31104. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480006. MG 31105. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480007. MG 31106. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480008. MG 31107. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480009. MG 31108. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480010. MG 31109. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480011. MG 31110. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480012. MG 31111. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480013. MG 31112. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480014. MG 31113. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480015. MG 31114. Ethiopia. Latitude: 09 deg 12 m N; Longitude: 038 deg 33 m E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.

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480016. MG 31116. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480017. MG 31117. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480018. MG 31118. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480019. MG 31119. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480020. MG 31121. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awnletted. Seed.
480021. MG 31122. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awnletted. Seed.
480022. MG 31123. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480023. MG 31125. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480024. MG 31127. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480025. MG 31128. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480026. MG 31129. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480027. MG 31130. Ethiopia. Latitude: 09 deg 12 n N; Longitude: 038 deg 33 n E. Sel. from IDG 229. Collected December 07, 1973. 2540m. Spikes awned. Seed.
480028. MG 31138. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 38 n E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awned. Seed.

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480029. MG 31142. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 38 n E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awned. Seed.
480030. MG 31143. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 38 n E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awned. Seed.
480031. MG 31144. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 38 n E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awned. Seed.
480032. MG 31145. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 38 n E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awned. Seed.
480033. MG 31146. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 38 n E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awned. Seed.
480034. MG 31147. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 33 n E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awned. Seed.
480035. MG 31148. Ethiopia. Latitude: 09 deg 13 n N; Longitude: 038 deg 38 n E. Sel. from IDG 232. Collected December 07, 1973. 2550m. Spikes awned. Seed.
480036. MG 31151. Ethiopia. Latitude: 09 deg 08 n N; Longitude: 038 deg 59 n E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480037. MG 31152. Ethiopia. Latitude: 09 deg 08 n N; Longitude: 038 deg 59 n E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480038. MG 31153. Ethiopia. Latitude: 09 deg 08 n N; Longitude: 038 deg 59 n E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480039. MG 31154. Ethiopia. Latitude: 09 deg 08 n N; Longitude: 038 deg 59 n E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480040. MG 31155. Ethiopia. Latitude: 09 deg 08 n N; Longitude: 038 deg 59 n E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480041. MG 31156. Ethiopia. Latitude: 09 deg 08 n N; Longitude: 038 deg 59 n E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.

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480042. MG 31157. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480043. MG 31158. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480044. MG 31160. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480045. MG 31161. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480046. MG 31162. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480047. MG 31163. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480048. MG 31164. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480049. MG 31165. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480050. MG 31166. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480051. MG 31167. Ethiopia. Latitude: 09 deg 08 N; Longitude: 038 deg 59 E. Sel. from IDG 965. Collected December 06, 1973. 2480m. Spikes awned. Local name Sindi. Seed.
480052. MG 31168. Ethiopia. Latitude: 09 deg 18 N; Longitude: 039 deg 14 E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480053. MG 31169. Ethiopia. Latitude: 09 deg 18 N; Longitude: 039 deg 14 E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480054. MG 31170. Ethiopia. Latitude: 09 deg 18 N; Longitude: 039 deg 14 E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.



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480055. MG 31171. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480056. MG 31172. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480057. MG 31173. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480058. MG 31175. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480059. MG 31176. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480060. MG 31177. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480061. MG 31178. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awnletted. Local name Sindi. Seed.
480062. MG 31179. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awnletted. Local name Sindi. Seed.
480063. MG 31180. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awnletted. Local name Sindi. Seed.
480064. MG 31181. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awnletted. Local name Sindi. Seed.
480065. MG 31182. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awnletted. Local name Sindi. Seed.
480066. MG 31183. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awnletted. Local name Sindi. Seed.
480067. MG 31184. Ethiopia. Latitude: 09 deg 18 m N; Longitude: 039 deg 14 m E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.

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480068. MG 31185. Ethiopia. Latitude: 09 deg 18 n N; Longitude: 039 deg 14 n E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480069. MG 31187. Ethiopia. Latitude: 09 deg 18 n N; Longitude: 039 deg 14 n E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480070. MG 31188. Ethiopia. Latitude: 09 deg 18 n N; Longitude: 039 deg 14 n E. Sel. from IDG 974. Collected December 06, 1973. 2760m. Spikes awned. Local name Sindi. Seed.
480071. MG 31189. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480072. MG 31190. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480073. MG 31191. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480074. MG 31192. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480075. MG 31193. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480076. MG 31194. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480077. MG 31195. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480078. MG 31196. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480079. MG 31197. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480080. MG 31198. Ethiopia. Latitude: 09 deg 38 n N; Longitude: 039 deg 22 n E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awnletted. Local name Sindi. Seed.

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480081. MG 31199. Ethiopia. Latitude: 09 deg 38 m N; Longitude: 039 deg 22 m E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awnletted. Local name Sindi. Seed.
480082. MG 31201. Ethiopia. Latitude: 09 deg 38 m N; Longitude: 039 deg 22 m E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480083. MG 31202. Ethiopia. Latitude: 09 deg 38 m N; Longitude: 039 deg 22 m E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480084. MG 31203. Ethiopia. Latitude: 09 deg 38 m N; Longitude: 039 deg 22 m E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480085. MG 31204. Ethiopia. Latitude: 09 deg 38 m N; Longitude: 039 deg 22 m E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480086. MG 31205. Ethiopia. Latitude: 09 deg 38 m N; Longitude: 039 deg 22 m E. Sel. from IDG 986. Collected December 07, 1973. 2720m. Spikes awned. Local name Sindi. Seed.
480087. MG 31206. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480088. MG 31207. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480089. MG 31208. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480090. MG 31209. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480091. MG 31210. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480092. MG 31211. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480093. MG 31212. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.

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480094. MG 31213. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480095. MG 31214. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480096. MG 31215. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480097. MG 31216. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480098. MG 31217. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480099. MG 31219. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480100. MG 31220. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480101. MG 31221. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awnless. Local name Sindi. Seed.
480102. MG 31222. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480103. MG 31223. Ethiopia. Latitude: 09 deg 37 m N; Longitude: 039 deg 17 m E. Sel. from IDG 987. Collected December 07, 1973. 2670m. Spikes awned. Local name Sindi. Seed.
480104. MG 31224. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480105. MG 31225. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480106. MG 31226. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.

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480107. MG 31128. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480108. MG 31229. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480109. MG 31230. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480110. MG 31231. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480111. MG 31232. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480112. MG 31233. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480113. MG 31235. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480114. MG 31236. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480115. MG 31237. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awnletted. Local name Sindi. Seed.
480116. MG 31238. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awnletted. Local name Sindi. Seed.
480117. MG 31239. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480118. MG 31240. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.
480119. MG 31241. Ethiopia. Latitude: 09 deg 43 m N; Longitude: 039 deg 04 m E. Sel. from IDG 998. Collected December 07, 1973. 2560m. Spikes awned. Local name Sindi. Seed.

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480120. MG 31242. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480121. MG 31243. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480122. MG 31244. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480123. MG 31245. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480124. MG 31246. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480125. MG 31247. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480126. MG 31248. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480127. MG 31249. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480128. MG 31250. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480129. MG 31251. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480130. MG 31252. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480131. MG 31253. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480132. MG 31254. Ethiopia. Latitude: 09 deg 42 m N; Longitude: 038 deg 50 m E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.

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480133. MG 31255. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480134. MG 31256. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDC 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480135. MG 31257. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480136. MG 31259. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480137. MG 31260. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480138. MG 31261. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480139. MG 31262. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480140. MG 31263. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480141. MG 31264. Ethiopia. Latitude: 09 deg 42 n N; Longitude: 038 deg 50 n E. Sel. from IDG 1951. Collected July 19, 1974. 2560m. Spikes awned. Local name Sindi. Seed.
480142. MG 31265. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480143. MG 31267. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480144. MG 31269. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480145. MG 31270. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.

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480146. MG 31272. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480147. MG 31273. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480148. MG 31274. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480149. MG 31275. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480150. MG 31279. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480151. MG 31280. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480152. 31281. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480153. MG 31282. Ethiopia. Latitude: 09 deg 03 n N; Longitude: 038 deg 33 n E. Sel. from IDG 1952. Collected December 08, 1973. 2580m. Spikes awned. Seed.
480154. MG 31283. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480155. MG 31284. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480156. MG 31285. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480157. MG 31286. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480158. MG 31287. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.



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480159. MG 31288. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480160. MG 31289. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480161. MG 31290. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480162. MG 31291. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480163. MG 31292. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480164. MG 31293. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480165. MG 31294. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480166. MG 31296. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480167. MG 31297. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480168. MG 31298. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480169. MG 31299. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480170. MG 31300. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480171. MG 31301. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.

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480172. MG 31302. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480173. MG 31303. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480174. MG 31304. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480175. MG 31306. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480176. MG 31315. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480177. MG 31316. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480178. MG 31317. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480179. MG 31318. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480180. MG 31319. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480181. MG 31320. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480182. MG 31322. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480183. MG 31323. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.
480184. MG 31324. Ethiopia. Sel. from IDG 1958. Collected December 10, 1973. 2220m. Spikes awned. Local name Sindi. Seed.

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480185. MG 31344. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awned. Seed.
480186. MG 31345. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awned. Seed.
480187. MG 31346. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awned. Seed.
480188. MG 31347. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awned. Seed.
480189. MG 31351. Ethiopia. Sel. from IDG 1959. Collected December 10, 1973. 2180m. Spikes awned. Seed.
480190. MG 31357. Ethiopia. Sel. from IDG 1960. Collected December 10, 1973. 2180m. Spikes awned. Seed.
480191. MG 31358. Ethiopia. Sel. from IDG 1960. Collected December 10, 1973. 2180m. Spikes awned. Seed.
480192. MG 31360. Ethiopia. Sel. from IDG 1960. Collected December 10, 1973. 2180m. Spikes awned. Seed.
480193. MG 31361. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480194. MG 31362. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480195. MG 31363. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480196. MG 31364. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480197. MG 31365. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480198. MG 31366. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480199. MG 31367. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480200. MG 31368. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480201. MG 31373. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480202. MG 31374. Ethiopia. Sel. from IDG 1962. Collected

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- December 10, 1973. 2150m. Spikes awned. Seed.
480203. MG 31375. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480204. MG 31376. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480205. MG 31377. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480206. MG 31378. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480207. MG 31384. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480208. MG 31385. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480209. MG 31386. Ethiopia. Sel. from IDG 1962. Collected December 10, 1973. 2150m. Spikes awned. Seed.
480210. MG 31387. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480211. MG 31388. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480212. MG 31389. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480213. MG 31390. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480214. MG 31391. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480215. MG 31392. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480216. MG 31393. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480217. MG 31394. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480218. MG 31395. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480219. MG 31398. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awnleted. Seed.

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480220. MG 31399. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awnletted. Seed.
480221. MG 31400. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480222. MG 31401. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480223. MG 31402. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480224. MG 31403. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480225. MG 31404. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480226. MG 31405. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480227. MG 31406. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480228. MG 31407. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awnletted. Seed.
480229. MG 31408. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awnletted. Seed.
480230. MG 31410. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480231. MG 31411. Ethiopia. Sel. from IDG 1966. Collected December 10, 1973. 1590m. Spikes awned. Seed.
480232. MG 31427. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awned. Seed.
480233. MG 31428. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awned. Seed.
480234. MG 31429. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awned. Seed.
480235. MG 31430. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awned. Seed.
480236. MG 31431. Ethiopia. Sel. from IDG 1988. Collected December 12, 1973. 1620m. Spikes awned. Seed.
480237. MG 31432. Ethiopia. Sel. from IDG 1988. Collected

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- December 12, 1973. 1620m. Spikes awned. Seed.
480238. MG 31443. Ethiopia. Sel. from IDG 1988. Collected  
December 12, 1973. 1620m. Spikes awned. Seed.
480239. MG 31444. Ethiopia. Sel. from IDG 1988. Collected  
December 12, 1973. 1620m. Spikes awned. Seed.
480240. MG 31452. Ethiopia. Sel. from IDG 1989. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480241. MG 31453. Ethiopia. Sel. from IDG 1989. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480242. MG 31454. Ethiopia. Sel. from IDG 1989. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480243. MG 31455. Ethiopia. Sel. from IDG 1989. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480244. MG 31462. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480245. MG 31463. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480246. MG 31464. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480247. MG 31465. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480248. MG 31466. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480249. MG 31467. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480250. MG 31468. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480251. MG 31469. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480252. MG 31470. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480253. MG 31471. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.
480254. MG 31472. Ethiopia. Sel. from IDG 1990. Collected  
December 12, 1973. 2710m. Spikes awned. Seed.

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480255. MG 31473. Ethiopia. Sel. from IDG 1990. Collected December 12, 1973. 2710m. Spikes awned. Seed.
480256. MG 31475. Ethiopia. Sel. from IDG 1990. Collected December 12, 1973. 2710m. Spikes awned. Seed.
480257. MG 31476. Ethiopia. Sel. from IDG 1990. Collected December 12, 1973. 2710m. Spikes awned. Seed.
480258. MG 31477. Ethiopia. Sel. from IDG 1990. Collected December 12, 1973. 2710m. Spikes awned. Seed.
480259. MG 31478. Ethiopia. Sel. from IDG 1990. Collected December 12, 1973. 2710m. Spikes awned. Seed.
480260. MG 31479. Ethiopia. Sel. from IDG 1990. Collected December 12, 1973. 2710m. Spikes awned. Seed.
480261. MG 31480. Ethiopia. Sel. from IDG 1990. Collected December 12, 1973. 2710m. Spikes awned. Seed.
480262. MG 31482. Ethiopia. Sel. from IDG 1990. Collected December 12, 1973. 2710m. Spikes awned. Seed.
480263. MG 31485. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480264. MG 31486. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480265. MG 31487. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480266. MG 31488. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480267. MG 31489. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480268. MG 31490. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480269. MG 31491. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480270. MG 31492. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480271. MG 31493. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480272. MG 31494. Ethiopia. Sel. from IDG 1992. Collected

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- December 12, 1973. 1740m. Spikes awned. Seed.
480273. MG 31495. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480274. MG 31496. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480275. MG 31497. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480276. MG 31498. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480277. MG 31499. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480278. MG 31500. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480279. MG 31501. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480280. MG 31502. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480281. MG 31503. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480282. MG 31504. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480283. MG 31505. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480284. MG 31506. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480285. MG 31507. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480286. MG 31508. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480287. MG 31509. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480288. MG 31510. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.
480289. MG 31511. Ethiopia. Sel. from IDG 1992. Collected  
December 12, 1973. 1740m. Spikes awned. Seed.



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480290. MG 31512. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480291. MG 31513. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480292. MG 31514. Ethiopia. Sel. from IDG 1992. Collected December 12, 1973. 1740m. Spikes awned. Seed.
480293. MG 31515. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480294. MG 31516. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480295. MG 31517. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480296. MG 31518. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480297. MG 31519. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480298. MG 31520. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480299. MG 31522. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480300. MG 31524. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480301. MG 31525. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480302. MG 31529. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480303. MG 31530. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.

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480304. MG 31531. Ethiopia. Sel. from IDG 1995. Collected December 12, 1973. 2420m. Spikes awned. Local name Sprimo. Seed.
480305. MG 31534. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480306. MG 31535. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480307. MG 31536. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480308. MG 31537. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480309. MG 31538. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480310. MG 31539. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480311. MG 31540. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480312. MG 31541. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480313. MG 31542. Ethiopia. Latitude: 09 deg 30 m N; Longitude: 038 deg 53 m E. Sel. from IDG 2133. Collected December 12, 1973. 2570m. Spikes awned. Local name Aggia. Seed.
480314. MG 31543. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480315. MG 31545. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480316. MG 31546. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.

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480317. MG 31547. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480318. MG 31548. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480319. MG 31549. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480320. MG 31550. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480321. MG 31551. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480322. MG 31552. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480323. MG 31553. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480324. MG 31554. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480325. MG 31555. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480326. MG 31556. Ethiopia. Latitude: 10 deg 02 m N; Longitude: 039 deg 33 m E. Sel. from IDG 501. Collected December 12, 1973. Spikes awned. Seed.
480327. MG 31557. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480328. MG 31558. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480329. MG 31559. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.

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480330. MG 31560. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480331. MG 31561. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480332. MG 31562. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480333. MG 31563. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480334. MG 31564. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480335. MG 31565. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480336. MG 31566. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480337. MG 31567. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480338. MG 31568. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480339. MG 31569. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480340. MG 31570. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480341. MG 31571. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480342. MG 31572. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.

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480343. MG 31573. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480344. MG 31574. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480345. MG 31575. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480346. MG 31576. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480347. MG 31577. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480348. MG 31578. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480349. MG 31579. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480350. MG 31580. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480351. MG 31581. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480352. MG 31582. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480353. MG 31583. Ethiopia. Sel. from IDG 503. Collected December 12, 1973. 2280m. Spikes awned. Local name Aibo. Seed.
480354. MG 31584. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480355. MG 31585. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.

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480356. MG 31587. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480357. MG 31588. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480358. MG 31589. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480359. MG 31590. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480360. MG 31592. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480361. MG 31593. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480362. MG 31594. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480363. MG 31595. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480364. MG 31596. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480365. MG 31597. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480366. MG 31598. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480367. MG 31599. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.
480368. MG 31600. Ethiopia. Sel. from IDG 504. Collected December 13, 1973. 2400m. Spikes awned. Local name Soprino. Seed.

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480369. MG 31610. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awned. Seed.
480370. MG 31611. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awned. Seed.
480371. MG 31612. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awnleted. Seed.
480372. MG 31618. Ethiopia. Sel. from IDG 505. Collected December 13, 1973. 2400m. Spikes awned. Seed.
480373. MG 31621. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480374. MG 31622. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480375. MG 31623. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480376. MG 31624. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480377. MG 31625. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480378. MG 31626. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480379. MG 31627. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480380. MG 31628. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480381. MG 31629. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480382. MG 31630. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.

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480383. MG 31631. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480384. MG 31632. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480385. MG 31633. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480386. MG 31634. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480387. MG 31635. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480388. MG 31636. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480389. MG 31637. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480390. MG 31640. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480391. MG 31641. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480392. MG 31642. Ethiopia. Sel. from IDG 507. Collected December 13, 1973. 2500m. Spikes awned. Local name Hollande. Seed.
480393. MG 31643. Ethiopia. Latitude: 09 deg 05  $\square$  N; Longitude: 038 deg 25  $\square$  E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480394. MG 31644. Ethiopia. Latitude: 09 deg 05  $\square$  N; Longitude: 038 deg 25  $\square$  E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480395. MG 31645. Ethiopia. Latitude: 09 deg 05  $\square$  N; Longitude: 038 deg 25  $\square$  E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.



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480396. MG 31647. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480397. MG 31649. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480398. MG 31650. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480399. MG 31651. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480400. MG 31653. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480401. MG 31654. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480402. MG 31655. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480403. MG 31656. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480404. MG 31657. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480405. MG 31658. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480406. MG 31659. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480407. MG 31660. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480408. MG 31661. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.

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480409. MG 31662. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480410. MG 31663. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480411. MG 31664. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480412. MG 31665. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480413. MG 31666. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480414. MG 31667. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480415. MG 31668. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480416. MG 31669. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awnletted. Seed.
480417. MG 31670. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480418. MG 31671. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480419. MG 31672. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480420. MG 31674. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480421. MG 31675. Ethiopia. Latitude: 09 deg 05 n N; Longitude: 038 deg 25 n E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.

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480422. MG 31676. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480423. MG 31677. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480424. MG 31678. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480425. MG 31679. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480426. MG 31680. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480427. MG 31681. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480428. MG 31682. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480429. MG 31683. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480430. MG 31684. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480431. MG 31685. Ethiopia. Latitude: 09 deg 05 m N; Longitude: 038 deg 25 m E. Sel. from IDG 257. Collected December 13, 1973. 2550m. Spikes awned. Seed.
480432. MG 31686. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480433. MG 31687. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480434. MG 31688. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.

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480435. MG 31689. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480436. MG 31690. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480437. MG 31691. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480438. MG 31692. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480439. MG 31693. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480440. MG 31694. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480441. MG 31695. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480442. MG 31696. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480443. MG 31697. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480444. MG 31698. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480445. MG 31699. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480446. MG 31700. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480447. MG 31701. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.

479909 TO 480470-continued

480448. MG 31702. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480449. MG 31703. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480450. MG 31704. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480451. MG 31705. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480452. MG 31706. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480453. MG 31707. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480454. MG 31708. Ethiopia. Latitude: 09 deg 01 m N; Longitude: 038 deg 16 m E. Sel. from IDG 262. Collected December 14, 1973. 2550m. Spikes awned. Seed.
480455. MG 31709. Ethiopia. Latitude: 09 deg 07 m N; Longitude: 038 deg 23 m E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480456. MG 31710. Ethiopia. Latitude: 09 deg 07 m N; Longitude: 038 deg 23 m E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480457. MG 31711. Ethiopia. Latitude: 09 deg 07 m N; Longitude: 038 deg 23 m E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480458. MG 31712. Ethiopia. Latitude: 09 deg 07 m N; Longitude: 038 deg 23 m E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480459. MG 31713. Ethiopia. Latitude: 09 deg 07 m N; Longitude: 038 deg 23 m E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480460. MG 31714. Ethiopia. Latitude: 09 deg 07 m N; Longitude: 038 deg 23 m E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.

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480461. MG 31715. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480462. MG 31716. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480463. MG 31717. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480464. MG 31718. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480465. MG 31719. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480466. MG 31720. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480467. MG 31721. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480468. MG 31722. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480469. MG 31723. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.
480470. MG 31724. Ethiopia. Latitude: 09 deg 07 n N; Longitude: 038 deg 23 n E. Sel. from IDG 263. Collected December 14, 1973. 2620m. Spikes awned. Seed.

480471 TO 480473. *Helianthus annuus* L. (Asteraceae) Sunflower.

From Zambia. Donated by Mt. Makulu Research Station, Ministry of Rural Development; Chilanga. Received through W.W. Roath, Zambian Agricultural Research and Extension, Lusaka, Zambia.

Received October 1983.

480471. FS-a-3. Zambia. Cytoplasm male sterile used in commercial production. Cytoplasm unknown but perhaps natural occurring and identified from a Mozambique

480471 TO 480473-continued  
collection. Cultivar. Seed.

480472. CCA82-2. Zambia. Composite. Resistant to Zambian strains of *Alternaria* and *Septoria* leaf spot diseases. Cultivar. Seed.

480473. CCD82. Zambia. Composite. Resistant to Zambian strains of *Alternaria* and *Septoria* leaf spot diseases. Cultivar. Seed.

480474. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Collected by Starling, T.M.; Dept. of Agronomy & Virginia Agricultural Station, Virginia Polytechnic Institute & State University; Blacksburg, Virginia.

Received October 1983.

Va. 79-54-254. 'Saluda'. United States. Va. 71-54-147 x Coker 68-15. Maturity mid-season. Plants medium-short, tillers profusely. Lodges under conditions of high fertility. Spikes short, compact, awnletted with very short tip awns. Chaff white. Seeds generally 3 per spikelet, plump. Milling quality good. Baking quality fair. Moderately resistant to powdery mildew, leaf rust. Moderately susceptible to spindle streak virus. Susceptible to stem rust and Hessian fly. Winter hardy for the mid-Atlantic region. Cultivar. Seed.

480475 TO 480481. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by National Small Grain Collection, Germplasm Resources Laboratory, USDA-ARS; Beltsville, Maryland.

Received October 1983.

480475. Bolivia. Selection from PI 478494. Spikes awnless. Glumes white. Cultivated. Seed.

480476. Bolivia. Selection from PI 478496. Spikes awned. Glumes brown. Cultivated. Seed.

480477. Bolivia. Selection from PI 478497. Spikes clavate. Glumes brown. Cultivated. Seed.

480478. Bolivia. Selection from PI 478497. Spikes awnletted. Glumes brown. Cultivated. Seed.

480479. Bolivia. Selection from PI 478497. Spikes awned. Glumes brown. Cultivated. Seed.

480475 TO 480481-continued

480480. Bolivia. Selection from PI 478498. Spikes awned, oblong. Cultivated. Seed.

480481. Bolivia. Selection from PI 478498. Spikes awned, elliptical. Cultivated. Seed.

480482 TO 480486. *Lupinus albus* L. (Fabaceae) White lupine.

From Israel. Collected by Mattatia, J.; Plant Introduction Department, The Volcani Center; Bet-Dagan 50250. Received September 1983.

480482. M-2714. Israel. Collected August 26, 1980. Eyn-Kinya, Golan Heights. 700m. Ancient type. Local name Turmus balady. Landrace. Seed.

480483. M-2738. Lebanon. Collected September 16, 1980. Hula. Ancient, local type. Plants with up to 9 pods per inflorescence. Four to six seeds per pod. Local name Turmus balady qadim. Landrace. Seed.

480484. M-2765. Lebanon. Collected September 16, 1980. Marun E-Rus. 950-1000m. Local name Turmus balady. Landrace. Seed.

480485. M-2974. Israel. Collected December 18, 1980. Bukatha, Golan Heights. 990m. Ancient Druze type. Local name Turmus baiady qadim. Landrace. Seed.

480486. M-2996. Israel. Collected December 19, 1980. Masada, Golan Heights. 980m. Local name Turmus balady. Landrace. Seed.

480487 TO 481476. *Amaranthus* sp. (Amaranthaceae).

From India. Donated by National Bureau of Plant Genetic Resources, IARI; New Delhi-PIN:110012. Received September 1983.

480487. IC-1838. India. Delhi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Randana. Primitive Cultivar. Seed.

480488. IC-5564-1. India. Poona. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Primitive Cultivar. Seed.

480489. IC-5574. India. Delhi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves



480487 TO 481476-continued

- used as vegetable and as purgative. Local name Ramdana. Primitive Cultivar. Seed.
480490. IC-5575. India. Delhi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Ramdana. Primitive Cultivar. Seed.
480491. IC-5626. India. Kulu. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriana. Primitive Cultivar. Seed.
480492. IC-5627. India. Kulu. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriana. Primitive Cultivar. Seed.
480493. IC-7916. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480494. IC-7919. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480495. IC-7920. India. Andhra Pradesh. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Primitive Cultivar. Seed.
480496. IC-7921. India. Andhra Pradesh. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Primitive Cultivar. Seed.
480497. IC-7926. India. Sirmour. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480498. IC-7928. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480499. IC-7932. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.

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480500. IC-7933-B. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
480501. IC-7934. India. Andhra Pradesh. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Primitive Cultivar. Seed.
480502. IC-7935-C. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480503. IC-7941. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480504. IC-13382. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480505. IC-13383. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480506. IC-15564-1-A. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480507. IC-16636. India. Chamoli. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
480508. IC-16637. India. Chamoli. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Manchu. Primitive Cultivar. Seed.
480509. IC-16639. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480510. IC-17454. India. Manipur. Collected by P.K. Arora. Used

480487 TO 481476-continued

- for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Primitive Cultivar. Seed.
480511. IC-17923. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used for vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480512. IC-17925. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480513. IC-17927. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480514. IC-17929. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480515. IC-17932. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480516. IC-17933. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480517. IC-17934. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480518. IC-17937. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480519. IC-17938. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480520. IC-17939. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used

480487 TO 481476-continued

- as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480521. IC-17941. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480522. IC-17943. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480523. IC-17945. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480524. IC-17946. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480525. IC-17947. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480526. IC-17949. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480527. IC-17950. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480528. IC-17951. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480529. IC-17953. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480530. IC-17954. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480531. IC-17955. India. Simla. Used for baking bread. Popped

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- seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480532. IC-17956. India. Simla. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
480533. IC-18314. India. Sirmour. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480534. IC-18315. India. Sirmour. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480535. IC-18362. India. Sirmour. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480536. IC-18363. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Seol. Primitive Cultivar. Seed.
480537. IC-18364. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Seol. Primitive Cultivar. Seed.
480538. IC-18369. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480539. IC-18370. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480540. IC-18371. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480541. IC-18373. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.

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480542. IC-18374. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480543. IC-18375. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480544. IC-18376. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480545. IC-18377. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480546. IC-18378. India. Kinnaur. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480547. IC-24206. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480548. IC-24266. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480549. IC-25783. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480550. IC-25784. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480551. IC-25786. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480552. IC-25787. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves

480487 TO 481476-continued

- used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480553. IC-25788. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480554. IC-25789. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480555. IC-26269. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480556. IC-26273. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480557. IC-26684. India. Mandi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480558. IC-26692. India. Lahaul. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
480559. IC-26693. India. Lahaul. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Primitive Cultivar. Seed.
480560. IC-26694. India. Lahaul. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Primitive Cultivar. Seed.
480561. IC-31004. India. Lahaul. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Primitive Cultivar. Seed.
480562. IC-31005. India. Lahaul. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Primitive Cultivar. Seed.

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480563. IC-31006. India. Lahaul. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Primitive Cultivar. Seed.
480564. IC-31819. India. Delhi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Primitive Cultivar. Seed.
480565. IC-37313. India. Sikkim. Collected by R.K. Arora. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Primitive Cultivar. Seed.
480566. IC-37314. India. Sikkim. Collected by R.K. Arora. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Primitive Cultivar. Seed.
480567. IC-38038. India. Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480568. IC-38039. India. Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480569. IC-38040. India. Bilaspur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Primitive Cultivar. Seed.
480570. IC-38041. India. Hamirpur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480571. IC-38042. India. Hamirpur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480572. IC-38043. India. Solan. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as



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- purgative. Ornamental. Local name Sil. Primitive Cultivar. Seed.
480573. IC-38045. India. Arki. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Used to ward off birds in maize fields. Primitive Cultivar. Seed.
480574. IC-38046. India. Haryana. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Used to ward off birds in maize fields. Primitive Cultivar. Seed.
480575. IC-38047. India. Kathal, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Used to ward off birds in maize fields. Local name Kalgi. Primitive Cultivar. Seed.
480576. IC-38048. India. Chawai, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Used to ward off birds in maize fields. Local name Siriara. Primitive Cultivar. Seed.
480577. IC-38051. India. Mansai, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Used to ward off birds in maize fields. Local name Siriara. Primitive Cultivar. Seed.
480578. IC-38052. India. Manthl, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Used to ward off birds in maize fields. Local name Siriara. Primitive Cultivar. Seed.
480579. IC-38053. India. Banjar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Used to ward off birds in maize fields. Local name Siriara. Primitive Cultivar. Seed.
480580. IC-38054. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480581. IC-38055. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480582. IC-38056. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480583. IC-38056-1. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480584. IC-38057. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480585. IC-37057-1. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480586. IC-38058. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480587. IC-38058-1. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480588. IC-38059. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480589. IC-38060. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480590. IC-38060-1. India. Narkanda, Simla. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480591. IC-38061. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480592. IC-38061-1. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480593. IC-38062. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480594. IC-38063. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480595. IC-38063-1. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480596. IC-38064. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480597. IC-38065. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480598. IC-38066. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.

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480599. IC-38067. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480600. IC-38068. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480601. IC-38069. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480602. IC-38069-1. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480603. IC-38070. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480604. IC-38083. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480605. IC-38084. India. Sarbati, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480606. IC-38085. India. Sarbati, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480607. IC-38086. India. Sarbati, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive

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Cultivar. Seed.

480608. IC-38087. India. Dungri, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480609. IC-38087-1. India. Narkanda, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480610. IC-38088. India. Hawrabagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480611. IC-38089. India. Hawrabagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480612. IC-38090. India. Hawrabagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480613. IC-38091. India. Hawrabagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480614. IC-38092. India. Hawrabagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480615. IC-38093. India. Hawrabagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480616. IC-38094. India. Hawrabagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable

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- and as purgative. Ornamental. Local name Siriara.  
Primitive Cultivar. Seed.
480617. IC-38095. India. Seyalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480618. IC-38096. India. Seyalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480619. IC-38097. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480620. IC-38098. India. Seyalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480621. IC-38099. India. Seylbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480622. IC-38100. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara, Primitive Cultivar. Seed.
480623. IC-38101. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480624. IC-38102. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480625. IC-38103. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as

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- purgative. Local name Siriara. Primitive Cultivar. Seed.
480626. IC-38104. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480627. IC-38105. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480628. IC-38106. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480629. IC-38107. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480630. IC-38108. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480631. IC-38109. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480632. IC-38109-1. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480633. IC-38111. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480634. IC-38112. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480635. IC-38113. India. Manali, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.

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480636. IC-38115. India. Manali, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480637. IC-38116. India. Shelagaon, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480638. IC-38117. India. Shelagaon, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480639. IC-38118. India. Shelagaon, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480640. IC-38119. India. Shelagaon, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480641. IC-38120. India. Shelagaon, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480642. IC-38121. India. Bawari, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480643. IC-38121-1. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480644. IC-38122. India. Bawari, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480645. IC-38123. India. Bawari, Kulu. Collected by B.D. Joshi.



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- Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480646. IC-38123-1. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480647. IC-38124. India. Bawari, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480648. IC-38125. India. Dhar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480649. IC-38126. India. Dhar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480650. IC-38127. India. Dhar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480651. IC-38127-1. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480652. IC-38129. India. Dhar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480653. IC-38130. India. Shalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480654. IC-38131. India. Shalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480655. IC-38132. India. Shalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and

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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480656. IC-38133. India. Shalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480657. IC-38134. India. Shalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480658. IC-38134-1. India. Chenota, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480659. IC-38135. India. Shalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480660. IC-38136. India. Shalbagh, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480661. IC-38137. India. Runbee, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480662. IC-38138. India. Runbee, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480663. IC-38139. India. Runbee, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480664. IC-38140. India. Runbee, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480665. IC-38141. India. Runbee, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.

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480666. IC-38142. India. Runbee, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480667. IC-38143. India. Kalbhai, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480668. IC-38144. India. Kalbhai, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480669. IC-38145. India. Kalbhai, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480670. IC-38146. India. Kalbhai, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480671. IC-38147. India. Kalbhai, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
- . 480672. IC-38148. India. Kalbhai, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480673. IC-38149. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480674. IC-38150. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480675. IC-38151. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480676. IC-38152. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and

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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480677. IC-38153. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480678. IC-38154. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480679. IC-38155. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480680. IC-38155-1. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480681. IC-38157. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480682. IC-38158. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480683. IC-38159. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480684. IC-38160. India. Bhunter, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480685. IC-38161. India. Bhunter, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480686. IC-38162. India. Bhunter, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.

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480687. IC-38163. India. Bhunter, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480688. IC-38164. India. Bhunter, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480689. IC-38165. India. Bhunter, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480690. IC-38167. India. Bhunter, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480691. IC-38168. India. Soghi, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Bathu. Primitive Cultivar. Seed.
480692. IC-38169. India. Jatil, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480693. IC-38170. India. Jatil, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480694. IC-38171. India. Jatil, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480695. IC-38172. India. Jatil, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480696. IC-38173. India. Resardi, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480697. IC-38174. India. Resardi, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and

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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480698. IC-38175. India. Kanala, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480699. IC-38176. India. Kanala, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480700. IC-38177. India. Kanala, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480701. IC-38178. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480702. IC-38179. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480703. IC-38180. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480704. IC-38181. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480705. IC-38182. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480706. IC-38183. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480707. IC-38184. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.

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480708. IC-38184-1. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480709. IC-38185. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480710. IC-38185-1. India. Koti, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480711. IC-38187. India. Butore, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480712. IC-38187-1. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480713. IC-38188. India. Butore, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480714. IC-38189. India. Butore, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480715. IC-38189-1. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480716. IC-38190. India. Butore, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480717. IC-38190-1. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara.

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Primitive Cultivar. Seed.

480718. IC-38191. India. Butore, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480719. IC-38191-1. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480720. IC-38192. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as purgative. Local name Seol. Primitive Cultivar. Seed.
480721. IC-38193. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as purgative. Local name Seol. Primitive Cultivar. Seed.
480722. IC-38193-1. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480723. IC-38194. India. Matan, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480724. IC-38194-1. India. Khanash, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480725. IC-38195. India. Dharampur, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480726. IC-38196. India. Changari, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480727. IC-38197. India. Kote, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as



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- purgative. Ornamental. Local name Seol. Primitive  
Cultivar. Seed.
480728. IC-38198. India. Kote, Mandi. Collected by B.D. Joshi.  
Used for baking bread. Popped seeds eaten with milk and  
sugar, sugar, or syrup. Leaves used as vegetable and as  
purgative. Ornamental. Local name Seol. Primitive  
Cultivar. Seed.
480729. IC-38199. India. Kote, Mandi. Collected by B.D. Joshi.  
Used for baking bread. Popped seeds eaten with milk and  
sugar, sugar, or syrup. Leaves used as vegetable and as  
purgative. Ornamental. Local name Seol. Primitive  
Cultivar. Seed.
480730. IC-38199-1. India. Khanash, Kulu. Collected by B.D.  
Joshi. Used for baking bread. Popped seeds eaten with  
milk and sugar, sugar, or syrup. Leaves used as vegetable  
and as purgative. Ornamental. Local name Siriara.  
Primitive Cultivar. Seed.
480731. IC-38200. India. Shalan, Kulu. Collected by B.D. Joshi.  
Used for baking bread. Popped seeds eaten with milk and  
sugar, sugar, or syrup. Leaves used as vegetable and as  
purgative. Ornamental. Local name Siriara. Primitive  
Cultivar. Seed.
480732. IC-38201. India. Sarhan, Simla. Collected by B.D. Joshi.  
Used for baking bread. Popped seeds eaten with milk and  
sugar, sugar, or syrup. Leaves used as vegetable and as  
purgative. Ornamental. Local name Bathu. Primitive  
Cultivar. Seed.
480733. IC-38201-1. India. Sarhan, Simla. Collected by B.D.  
Joshi. Used for baking bread. Popped seeds eaten with  
milk and sugar, sugar, or syrup. Leaves used as vegetable  
and as purgative. Ornamental. Local name Bathu. Primitive  
Cultivar. Seed.
480734. IC-38202-1. India. Sarhan, Simla. Collected by B.D.  
Joshi. Used for baking bread. Popped seeds eaten with  
milk and sugar, sugar, or syrup. Leaves used as vegetable  
and as purgative. Ornamental. Local name Bathu. Primitive  
Cultivar. Seed.
480735. IC-38203. India. Sarhan, Simla. Collected by B.D. Joshi.  
Used for baking bread. Popped seeds eaten with milk and  
sugar, sugar, or syrup. Leaves used as vegetable and as  
purgative. Ornamental. Local name Bathu. Primitive  
Cultivar. Seed.
480736. IC-38203-1. India. Sarhan, Simla. Collected by B.D.  
Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480737. IC-38204. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480738. IC-38204-1. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480739. IC-38205. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480740. IC-38205-1. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480741. IC-38206. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480742. IC-38206-1. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480743. IC-38207. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480744. IC-38208. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480745. IC-38209. India. Sarhan, Simla. Collected by B.D. Joshi.

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- Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480746. IC-38210. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480747. IC-38211. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480748. IC-38212. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480749. IC-38213. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480750. IC-38214. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480751. IC-38215. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480752. IC-38216. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480753. IC-38218. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.

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480754. IC-38220. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480755. IC-38221. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480756. IC-38223. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480757. IC-38224. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480758. IC-38225. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480759. IC-38226. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480760. IC-38227. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480761. IC-38228. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480762. IC-38229. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive

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Cultivar. Seed.

480763. IC-38230. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480764. IC-38231. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480765. IC-38232. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480766. IC-38233. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480767. IC-38235. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480768. IC-38236. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480769. IC-38237. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480770. IC-38238. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480771. IC-38239. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as

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- purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480772. IC-38242. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480773. IC-38243. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480774. IC-38244. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480775. IC-38245. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480776. IC-38246. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480777. IC-38247. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480778. IC-38248. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480779. IC-38249. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480780. IC-38251. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and

480487 TO 481476-continued

- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480781. IC-38252. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480782. IC-38253. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480783. IC-38255-2. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480784. IC-38256. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480785. IC-38257. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480786. IC-38258. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480787. IC-38259. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480788. IC-38262. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480789. IC-38263. India. Sarhan, Simla. Collected by B.D. Joshi.

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- Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480790. IC-38264. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480791. IC-38265. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480792. IC-38266. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480793. IC-38267. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480794. IC-38268. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480795. IC-38270. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480796. IC-38271. India. Sarhan, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480797. IC-38276. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.



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480798. IC-38276-1. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480799. IC-38277. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480800. IC-38277-1. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480801. IC-38278. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480802. IC-38278-1. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480803. IC-38279. India. Kadai, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480804. IC-38279-1. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480805. IC-38280. India. Kadai, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480806. IC-38280-1. India. Kadi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive

480487 TO 481476-continued  
Cultivar. Seed.

480807. IC-38281. India. Kadai, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480808. IC-38282. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480809. IC-38282-1. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480810. IC-38283. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480811. IC-38283-1. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480812. IC-38284. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480813. IC-38284-1. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480814. IC-38285. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480815. IC-38285-1. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as

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- purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480816. IC-38286. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480817. IC-38287. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480818. IC-38287-1. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480819. IC-38288. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480820. IC-38288-1. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480821. IC-38289. India. Chaki, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480822. IC-38296. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480823. IC-38297. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480824. IC-38297-1. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and

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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480825. IC-38298. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480826. IC-38298-1. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480827. IC-38299. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480828. IC-38299-1. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480829. IC-38300. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480830. IC-38300-1. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480831. IC-38301. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480832. IC-38301-1. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480833. IC-38302. India. Bounda, Kulu. Collected by B.D. Joshi.

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- Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480834. IC-38302-1. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480835. IC-38303. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480836. IC-38304. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480837. IC-38304-1. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480838. IC-38305. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480839. IC-38305-1. India. Bounda, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480840. IC-38306. India. Mandi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480841. IC-38306-1. India. Mandi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.

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480842. IC-38307. India. Sahgan, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480843. IC-38307-1. India. Sahgana, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480844. IC-38308. India. Sahgan, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480845. IC-38308-1. India. Sahganga, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480846. IC-38309. India. Sahgan, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480847. IC-38309-1. India. Sahganga, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480848. IC-38310. India. Sahgan, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480849. IC-38310-1. India. Sahganga, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480850. IC-38311. India. Sahgan, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive

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Cultivar. Seed.

480851. IC-38311-1. India. Sahganga, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480852. IC-38312. India. Sahgan, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480853. IC-38312-1. India. Sahganga, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480854. IC-38313. India. Sagori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480855. IC-38313-1. India. Sagan, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480856. IC-38314. India. Sagori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480857. IC-38314-1. India. Sagan, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480858. IC-38315. India. Sagori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480859. IC-38315-1. India. Sagan, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as

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- purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480860. IC-38316. India. Sagori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480861. IC-38316-1. India. Sagan, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480862. IC-37317. India. Sagori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480863. IC-38317-1. India. Sagan, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480864. IC-38318. India. Sagori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480865. IC-38318-1. India. Sagan, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480866. IC-38319. India. Sagan, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480867. IC-38320. India. Jareid, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480868. IC-38320-1. India. Jareid, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and



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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480869. IC-38321. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480870. IC-38322. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480871. IC-38323. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480872. IC-38323-1. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480873. IC-38324. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480874. IC-38325. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480875. IC-38326. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480876. IC-38326-1. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480877. IC-38327. India. Kelodhar, Mandi. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480878. IC-38327-1. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480879. IC-38328. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480880. IC-38329. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480881. IC-38330. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480882. IC-38331. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480883. IC-38331-1. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480884. IC-38332. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480885. IC-38332-1. India. Kelodhar, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.

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480886. IC-38334. India. Kulu, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Siriara. Primitive Cultivar. Seed.
480887. IC-38334-1. India. Dharmar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480888. IC-38335. India. Dharmar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480889. IC-38335-1. India. Dharmar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480890. IC-38337. India. Dharmar, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480891. IC-38340. India. Mandi, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480892. IC-38341. India. Karole, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480893. IC-38343. India. Karole, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480894. IC-38344. India. Karole, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.

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480895. IC-38346. India. Karole, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480896. IC-38347. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
480897. IC-38347-1. India. Karole, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
480898. IC-38348. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480899. IC-38348-1. India. Karole, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
480900. IC-38349. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480901. IC-38349-1. India. Karole, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
480902. IC-38350. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480903. IC-38350-1. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
480904. IC-38351. India. Chiri, Kinnaur. Collected by B.D. Joshi.

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- Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480905. IC-38351-1. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
480906. IC-38352. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480907. IC-38353. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480908. IC-38353-1. India. Chiri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480909. IC-38354. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480910. IC-38355. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480911. IC-38356. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480912. IC-38356-1. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480913. IC-38357. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480914. IC-38357-1. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480915. IC-38358. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480916. IC-38358-1. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480917. IC-38359. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480918. IC-38360. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480919. IC-38362. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480920. IC-38363. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480921. IC-38364. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480922. IC-38365. India. Churag, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480923. IC-38366. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480924. IC-38367. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as

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- purgative. Local name Kalgi. Primitive Cultivar. Seed.
480925. IC-38370. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480926. IC-38371. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480927. IC-38372. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480928. IC-38374. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480929. IC-38375. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480930. IC-38377. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480931. IC-38378. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480932. IC-38379. India. Sorey, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Kalgi. Primitive Cultivar. Seed.
480933. IC-38380. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480934. IC-38382. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480935. IC-38383. India. Karsog, Mandi. Collected by B.D. Joshi.

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- Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480936. IC-38384. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480937. IC-38385. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480938. IC-38386. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480939. IC-38387. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480940. IC-38388. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480941. IC-38389. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480942. IC-38390. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480943. IC-38391. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480944. IC-38392. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480945. IC-38393. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.



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480946. IC-38394. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480947. IC-38395. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480948. IC-38396. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480949. IC-38397. India. Karsog, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480950. IC-38398. India. Taban, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480951. IC-38399. India. Taban, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480952. IC-38400. India. Taban, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480953. IC-38401. India. Taban, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480954. IC-38403. India. Taban, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480955. IC-38404. India. Taban, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480956. IC-38415. India. Memel, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and

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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480957. IC-38416. India. Memel, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480958. IC-38418. India. Memel, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480959. IC-38419. India. Memel, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480960. IC-38420. India. Memel, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480961. IC-38421. India. Memel, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480962. IC-38422. India. Memel, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480963. IC-38425. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480964. IC-38426. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480965. IC-38427. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480966. IC-38428. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.

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480967. IC-38429. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480968. IC-38430. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480969. IC-38431. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480970. IC-38432. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480971. IC-38433. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480972. IC-38435. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480973. IC-38436. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480974. IC-38437. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480975. IC-38438. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480976. IC-38442. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480977. IC-38443. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and

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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480978. IC-38444. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480979. IC-38445. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480980. IC-38446. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480981. IC-38447. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480982. IC-38449. India. Kotalu, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Seol. Primitive Cultivar. Seed.
480983. IC-38454. India. Shakrori, Mandi. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Seol. Primitive Cultivar. Seed.
480984. IC-38471. India. Shakrori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480985. IC-38472. India. Shakrori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480986. IC-38473. India. Shakrori, Kulu. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Siriara. Primitive Cultivar. Seed.
480987. IC-38478. India. Simla, Simla. Collected by B.D. Joshi.

480487 TO 481476-continued

- Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480988. IC-38481. India. Karato, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480989. IC-38482. India. Karato, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480990. IC-38484. India. Karato, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480991. IC-38487. India. Karato, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
480992. IC-38490. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480993. IC-38491. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480994. IC-38493. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480995. IC-38494. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.

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480996. IC-38495. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480997. IC-38496. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480998. IC-38497. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
480999. IC-38498. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481000. IC-38499. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481001. IC-38500. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481002. IC-38501. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481003. IC-38504. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481004. IC-38505. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage.

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Local name Kalgi. Primitive Cultivar. Seed.

481005. IC-38506. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481006. IC-38507. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481007. IC-38508. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481008. IC-38509. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481009. IC-38510. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481010. IC-38513. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481011. IC-38515. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481012. IC-38516. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481013. IC-38517. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable

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- and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481014. IC-38518. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481015. IC-38519. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481016. IC-38520. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481017. IC-38521. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481018. IC-38522. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481019. IC-38523. India. Sangla, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Kalgi. Primitive Cultivar. Seed.
481020. IC-38524. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481021. IC-38525. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481022. IC-38526. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and



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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481023. IC-38527. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481024. IC-38528. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481025. IC-38529. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481026. IC-38530. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481027. IC-38531. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481028. IC-38532. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481029. IC-38533. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481030. IC-38534. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481031. IC-38535. India. Kalpa, Kinnaur. Collected by B.D. Joshi.

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Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.

481032. IC-38536. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481033. IC-38537. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481034. IC-38538. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481035. IC-38540. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481036. IC-38541. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481037. IC-38542. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481038. IC-38545. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481039. IC-38546. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.

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481040. IC-38547. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481041. IC-38548. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481042. IC-38549. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481043. IC-38551. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481044. IC-38554. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481045. IC-38555. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481046. IC-38556. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481047. IC-38557. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481048. IC-38558. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name

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Dhankar. Primitive Cultivar. Seed.

481049. IC-38559. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481050. IC-38560. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481051. IC-38561. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481052. IC-38562. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481053. IC-38563. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481054. IC-38564. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481055. IC-38565. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481056. IC-38567. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481057. IC-38573. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as

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- purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481058. IC-38576. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481059. IC-38577. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481060. IC-38578. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481061. IC-38579. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481062. IC-38580. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481063. IC-38581. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481064. IC-38582. India. Kalpa, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481065. IC-38583. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481066. IC-38584. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and

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- sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481067. IC-38585. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481068. IC-38586. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481069. IC-38587. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481070. IC-38589. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481071. IC-38590. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481072. IC-38591. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481073. IC-38592. India. Pangri, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Dhankar. Primitive Cultivar. Seed.
481074. IC-38593. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481075. IC-38594. India. Fagu, Simla. Collected by B.D. Joshi.

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Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.

481076. IC-38595. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481077. IC-38596. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481078. IC-38597. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481079. IC-38598. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481080. IC-38599. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481081. IC-38601. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481082. IC-38602. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481083. IC-38603. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.

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481084. IC-38604. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481085. IC-38605. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481086. IC-38606. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481087. IC-38607. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481088. IC-38608. India. Fagu, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Fermented seeds used as a beverage. Local name Bathu. Primitive Cultivar. Seed.
481089. IC-38609. India. Dwarchi, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481090. IC-38610. India. Dwarchi, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481091. IC-38612. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481092. IC-38613. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive



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481093. IC-38614. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481094. IC-38615. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481095. IC-38616. India. Dwarchi, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481096. IC-38618. India. Dwarchi, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481097. IC-38619. India. Dwarchi, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481098. IC-38620. India. Barua, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481099. IC-38621. India. Swang, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481100. IC-38622. India. Swang, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481101. IC-38623. India. Swang, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as

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- purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481102. IC-38524. India. Kannau, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481103. IC-38626. India. Kannau, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481104. IC-38628. India. Kannau, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481105. IC-38629. India. Kannau, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481106. IC-38641. India. Dohi, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481107. IC-38642. India. Nora, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481108. IC-38643. India. Nora, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481109. IC-38647. India. Bekhalte, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481110. IC-38648. India. Bekhalte, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481111. IC-38649. India. Bekhalte, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481112. IC-38650. India. Bekhalte, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481113. IC-38651. India. Bekhalte, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481114. IC-38652. India. Bekhalte, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481115. IC-38653. India. Bekhalte, Simla. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Bathu. Primitive Cultivar. Seed.
481116. IC-38655. India. Sapni, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481117. IC-38656. India. Sapni, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481118. IC-38657. India. Sapni, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481119. IC-38659. India. Palampur, Kangra. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Sil. Primitive Cultivar. Seed.
481120. IC-38662. India. Palampur, Kangra. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Sil. Primitive Cultivar. Seed.
481121. IC-38663. India. Palampur, Kangra. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Sil. Primitive Cultivar. Seed.
481122. IC-38664. India. Palampur, Kangra. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Sil. Primitive Cultivar. Seed.
481123. IC-38665. India. Palampur, Kangra. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Sil. Primitive Cultivar. Seed.
481124. IC-38666. India. Palampur, Kangra. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Sil. Primitive Cultivar. Seed.
481125. IC-38667. India. Palampur, Kangra. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Sil. Primitive Cultivar. Seed.
481126. IC-42254-2. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481127. IC-42254-3. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.

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481128. IC-42254-4. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481129. IC-42254-5. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481130. IC-42254-7. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481131. IC-42255-1. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481132. IC-42255-3. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481133. IC-42255-4. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481134. IC-42255-5. India. Pauri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481135. IC-42255-6. India. Karda, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481136. IC-42267-1. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local

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name Marchu. Primitive Cultivar. Seed.

481137. IC-42267-2. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481138. IC-42267-3. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481139. IC-42267-4. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481140. IC-42267-5. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481141. IC-42267-6. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481142. IC-42267-7. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481143. IC-42267-8. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481144. IC-42268-1. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481145. IC-42268-2. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable

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and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.

481146. IC-42268-4. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481147. IC-42268-5. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481148. IC-42268-6. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481149. IC-42268-7. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481150. IC-42268-8. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481151. IC-42268-9. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481152. IC-42268-10. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481153. IC-42269-1. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481154. IC-42269-2. India. Dhangri, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481155. IC-42270-11. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481156. IC-42270-12. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481157. IC-42271-1. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481158. IC-42271-2. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481159. IC-42271-3. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481160. IC-42271-4. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481161. IC-42271-5. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481162. IC-42271-7. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481163. IC-42271-8. India. Sunargaon, Pauri. Collected by B.D.



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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481164. IC-42272-1. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481165. IC-42272-2. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481166. IC-42272-3. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481167. IC-42272-4. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481168. IC-42273-1. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481169. IC-42273-2. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481170. IC-42273-3. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481171. IC-42274-1. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.

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481172. IC-42274-3. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481173. IC-42274-5. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481174. IC-42274-7. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481175. IC-42274-8. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481176. IC-42274-9. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481177. IC-42274-10. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481178. IC-42274-12. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481179. IC-42274-14. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481180. IC-42274-15. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local

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name Marchu. Primitive Cultivar. Seed.

481181. IC-42274-16. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481182. IC-42274-17. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481183. IC-42275-1. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481184. IC-42275-2. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481185. IC-42275-3. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481186. IC-42275-5. India. Sunargaon, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481187. IC-42276-1. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481188. IC-42276-2. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481189. IC-42276-3. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable

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- and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481190. IC-42276-6. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481191. IC-42276-8. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481192. IC-42276-9. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481193. IC-42276-10. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481194. IC-42276-11. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481195. IC-42276-12. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481196. IC-42276-14. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481197. IC-42276-15. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481198. IC-42276-16. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481199. IC-42276-17. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481200. IC-42276-18. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481201. IC-42277-1. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481202. IC-42277-2. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481203. IC-42277-3. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481204. IC-42277-4. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481205. IC-42277-5. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481206. IC-42277-6. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481207. IC-42277-7. India. Bhatkot, Pauri. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481208. IC-42277-8. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481209. IC-42277-9. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481210. IC-42277-10. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481211. IC-42277-11. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481212. IC-42277-12. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481213. IC-42277-13. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481214. IC-42277-14. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481215. IC-42277-15. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.

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481216. IC-42278-1. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481217. IC-42278-2. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481218. IC-42278-3. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481219. IC-42278-4. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481220. IC-42278-5. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481221. IC-42278-6. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481222. IC-42278-7. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481223. IC-42278-8. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481224. IC-42278-9. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local

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name Marchu. Primitive Cultivar. Seed.

481225. IC-42278-10. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481226. IC-42278-11. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481227. IC-42278-12. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481228. IC-42278-13. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481229. IC-42278-14. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481230. IC-42278-15. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481231. IC-42279-1. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481232. IC-42279-2. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481233. IC-42279-3. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable



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- and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481234. IC-42279-4. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481235. IC-42279-5. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481236. IC-42279-6. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481237. IC-42279-7. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481238. IC-42279-8. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481239. IC-42279-9. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481240. IC-42279-10. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481241. IC-42279-11. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481242. IC-42280-2. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481243. IC-42280-4. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481244. IC-42280-6. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481245. IC-42280-7. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481246. IC-42280-8. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481247. IC-42280-9. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481248. IC-42280-10. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481249. IC-42280-11. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481250. IC-42280-12. India. Bhatkot, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481251. IC-42280-13. India. Bhatkot, Pauri. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481252. IC-42281-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481253. IC-42281-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481254. IC-42281-3. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481255. IC-42281-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481256. IC-42281-5. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481257. IC-42281-7. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481258. IC-42281-8. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481259. IC-42281-9. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.

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481260. IC-42281-10. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481261. IC-42281-11. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481262. IC-42281-13. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481263. IC-42281-14. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481264. IC-42281-15. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481265. IC-42281-16. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481266. IC-42281-17. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481267. IC-42281-18. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481268. IC-42281-19. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local

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- name Marchu. Primitive Cultivar. Seed.
481269. IC-42281-20. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481270. IC-42282-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481271. IC-42282-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481272. IC-42282-3. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481273. IC-42282-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481274. IC-42282-5. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481275. IC-42282-6. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481276. IC-42282-7. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481277. IC-42282-9. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable

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- and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481278. IC-42282-10. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481279. IC-42283-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481280. IC-42283-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481281. IC-42283-3. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481282. IC-42283-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481283. IC-42283-5. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481284. IC-42283-6. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481285. IC-42283-7. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481286. IC-42283-8. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481287. IC-42283-9. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481288. IC-42284-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481289. IC-42284-3. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481290. IC-42284-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481291. IC-42284-5. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481292. IC-42284-6. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481293. IC-42284-7. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481294. IC-42284-9. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481295. IC-42284-10. India. Tungar, Pauri. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481296. IC-42284-11. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481297. IC-42284-12. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481298. IC-42284-13. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481299. IC-42284-14. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481300. IC-42284-15. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481301. IC-42284-17. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481302. IC-42284-18. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481303. IC-42285-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.



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481304. IC-42285-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481305. IC-42285-3. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481306. IC-42285-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481307. IC-42285-5. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481308. IC-42285-6. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481309. IC-42285-7. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481310. IC-42285-8. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481311. IC-42285-9. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481312. IC-42285-10. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local

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name Marchu. Primitive Cultivar. Seed.

481313. IC-42285-11. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481314. IC-42285-12. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481315. IC-42285-13. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481316. IC-42286-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481317. IC-42286-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481318. IC-42286-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481319. IC-42286-5. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481320. IC-42286-6. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481321. IC-42286-7. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable

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- and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481322. IC-42286-10. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481323. IC-42287-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481324. IC-42287-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481325. IC-42287-3. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481326. IC-42287-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481327. IC-42287-5. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481328. IC-42287-6. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481329. IC-42287-7. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481330. IC-42287-9. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481331. IC-42287-9. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481332. IC-42287-10. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481333. IC-42287-11. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481334. IC-42287-12. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481335. IC-42287-13. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481336. IC-42287-14. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481337. IC-42288-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481338. IC-42290-2. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481339. IC-42290-3. India. Tungar, Tungar. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481340. IC-42290-5. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481341. IC-42290-6. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481342. IC-42290-8. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481343. IC-42290-9. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481344. IC-42290-10. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481345. IC-42290-12. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481346. IC-42290-13. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481347. IC-42290-14. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.

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481348. IC-42290-15. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481349. IC-42290-16. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481350. IC-42290-17. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481351. IC-42290-18. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481352. IC-42290-20. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481353. IC-42290-21. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481354. IC-42292-1. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481355. IC-42292-2. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481356. IC-42292-3. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local

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- name Marchu. Primitive Cultivar. Seed.
481357. IC-42292-4. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481358. IC-42292-5. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481359. IC-42292-6. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481360. IC-42292-9. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481361. IC-42292-10. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481362. IC-42292-11. India. Tungar, Tungar. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481363. IC-42292-12. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481364. IC-42293-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481365. IC-42293-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable

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- and as purgative. Ornamental. Local name Marchu.  
Primitive Cultivar. Seed.
481366. IC-42293-3. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481367. IC-42293-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481368. IC-42294-1. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481369. IC-42294-2. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481370. IC-42294-3. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481371. IC-42294-4. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481372. IC-42294-5. India. Tungar, Pauri. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481373. IC-42295. India. Chamoli, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481374. IC-42296. India. Pondukesar, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with



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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481375. IC-42297. India. Pondukesar, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481376. IC-42303. India. Pulra, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481377. IC-42305. India. Pulra, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481378. IC-42306. India. Pulra, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481379. IC-42307-1. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481380. IC-42307-2. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481381. IC-42307-3. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481382. IC-42307-4. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481383. IC-42307-5. India. Govindghat, Chamoli. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481384. IC-42308-1. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481385. IC-42308-2. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481386. IC-42308-3. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481387. IC-42308-4. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481388. IC-42308-5. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481389. IC-42309-1. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481390. IC-42309-2. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Marchu. Primitive Cultivar. Seed.
481391. IC-42309-3. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.

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481392. IC-42309-4. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481393. IC-42309-5. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481394. IC-42310-1. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481395. IC-42310-2. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481396. IC-42311-1. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481397. IC-42313-1. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481398. IC-42313-2. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481399. IC-42313-3. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481400. IC-42313-4. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local

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name Marchu. Primitive Cultivar. Seed.

481401. IC-42313-6. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481402. IC-42313-7. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481403. IC-42313-8. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481404. IC-42313-9. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481405. IC-42313-10. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481406. IC-42313-11. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481407. IC-42313-12. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481408. IC-42313-13. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481409. IC-42313-14. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as

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- vegetable and as purgative. Dried stems burned (folklore).  
Local name Marchu. Primitive Cultivar. Seed.
481410. IC-42313-15. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore).  
Local name Marchu. Primitive Cultivar. Seed.
481411. IC-42313-16. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore).  
Local name Marchu. Primitive Cultivar. Seed.
481412. IC-42313-17. India. Govindghat, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore).  
Local name Marchu. Primitive Cultivar. Seed.
481413. IC-42314-1. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481414. IC-42314-2. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481415. IC-42314-3. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481416. IC-42314-4. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481417. IC-42314-5. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481418. IC-42314-6. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with

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- milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481419. IC-42314-7. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481420. IC-42315-1. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481421. IC-42315-2. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481422. IC-42315-3. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481423. IC-42315-4. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481424. IC-42315-6. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481425. IC-42315-7. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481426. IC-42315-8. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481427. IC-42315-9. India. Pirola, Chamoli. Collected by B.D.

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- Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481428. IC-42315-10. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481429. IC-42315-11. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481430. IC-42315-12. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481431. IC-42316-1. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481432. IC-42316-2. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481433. IC-42316-3. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481434. IC-42316-4. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481435. IC-42316-5. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.

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481436. IC-42316-6. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481437. IC-42316-8. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481438. IC-42316-9. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481439. IC-42316-10. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481440. IC-42316-11. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481441. IC-42316-12. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481442. IC-42316-13. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481443. IC-42317-5. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481444. IC-42318-1. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local



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name Marchu. Primitive Cultivar. Seed.

481445. IC-42318-2. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481446. IC-42318-3. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481447. IC-42318-4. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481448. IC-42318-5. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481449. IC-42318-6. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481450. IC-42318-7. India. Pirola, Chamoli. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Dried stems burned (folklore). Local name Marchu. Primitive Cultivar. Seed.
481451. HAC-11. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481452. HAC-12. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481453. HAC-13. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as

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- purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481454. HAC-14. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481455. HAC-16. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481456. HAC-18. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481457. HAC-19. India. Kinnaur, Kinnaur. Collected by B.D. Joshi. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Ornamental. Local name Kalgi. Primitive Cultivar. Seed.
481458. EC-12380. Germany, Federal Rep of. Local name Kalgi. Primitive Cultivar. Seed.
481459. EC-12380 A. Germany, Federal Rep of. Local name Kalgi. Primitive Cultivar. Seed.
481460. EC-14558. Germany, Federal Rep of. Primitive Cultivar. Seed.
481461. EC-16338. Germany, Federal Rep of. Primitive Cultivar. Seed.
481462. EC-16616. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481463. EC-18602. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481464. EC-18626. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.

480487 TO 481476-continued

481465. EC-18696. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481466. EC-18717. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481467. EC-18765. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481468. EC-18862. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481469. EC-18874. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481470. 18900. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481471. EC-19363. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481472. EC-21260. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481473. EC-24262. Nepal. Used for baking bread. Popped seeds eaten with milk and sugar, sugar, or syrup. Leaves used as vegetable and as purgative. Local name Latare. Primitive Cultivar. Seed.
481474. EC-24263. Nepal. Primitive Cultivar. Seed.
481475. EC-24264. United States. Cultivated. Seed.
481476. EC-24265. United States. Cultivated. Seed.

481477 TO 481539. *Triticum dicoccoides* (Koern. ex Asch. & Graebn.)  
Aaronsohn (Poaceae) Wild emmer.

From Israel. Donated by Gerechter-Amitai, Z.; Institute of Field  
& Garden Crops, The Volcani Center; Bet-Dagan 50-250.  
Received through Binational Agric. Research Development  
Projects (BARD) I-63-79 and I-365-81.  
Received November 1983.

- 481477. G-527-1. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481478. G-583-1B. Israel. Susceptible to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481479. G-632-M. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481480. G-650-1B. Israel. Moderately resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481481. G-655-1B. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481482. G-656-1. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481483. G-658-1B. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481484. G-724. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481485. G-725. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481486. G-726. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481487. G-727. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481488. G-728. Israel. Susceptible to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481489. G-729. Israel. Susceptible to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481490. G-730. Israel. Moderately resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
- 481491. G-731. Israel. Susceptible to powdery mildew culture no.

481477 TO 481539-continued

6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481492. G-732. Israel. Susceptible to powdery mildew culture no.6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481493. G-733. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481494. G-734. Israel. Susceptible to powdery mildew culture no.6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481495. G-735. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481496. G-736. Israel. Moderately resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481497. G-737. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481498. G-738. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481499. G-739. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481500. G-740. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481501. G-741. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481502. G-742. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481503. G-743. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481504. G-745. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481505. G-746. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481506. G-747. Israel. Susceptible to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481507. G-748. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481508. G-750. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.

481477 TO 481539-continued

481509. G-751. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481510. G-752. Israel. Resistant to powdery mildew culture no. 6. Wild. Seed.
481511. G-753. Israel. Susceptible to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481512. G-754. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481513. G-755. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481514. G-756. Israel. Susceptible to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481515. G-757. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481516. G-758. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481517. G-760. Israel. Moderately resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481518. G-761. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481519. G-762. Israel. Susceptible to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481520. G-764. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481521. G-766. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481522. G-769. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481523. G-771. Israel. Susceptible to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481524. G-772. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.
481525. G-773. Israel. Resistant to powdery mildew culture no. 6. Susceptible to leaf rust culture no. 6. Wild. Seed.

481477 TO 481539-continued

481526. G-775. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481527. G-776. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481528. G-778. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481529. G-779. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481530. G-783. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481531. G-784. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481532. G-786. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481533. G-787. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481534. G-788. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481535. G-789. Israel. Resistant to powdery mildew culture no. 6.  
Susceptible to leaf rust culture no. 6. Wild. Seed.
481536. G-31. Israel. Wild. Seed.
481537. G-535-1. Israel. Wild. Seed.
481538. G-578. Israel. Wild. Seed.
481539. G-690. Israel. Wild. Seed.

481540. *Arachis hypogaea* L. (Fabaceae) Peanut.

From India. Donated by Mouli, C.; Biology and Agriculture  
Division, Bhabha Atomic Research Center; Trombay, Bombay  
400.085.

Received November 1983.

TG-18A. India. Mutant from irradiated Trombay Groundnut  
TG-18. Spanish bunch type with few branches, sequential  
flower pattern, early maturity. Virginia-type large pods  
and seed dormancy. Breeding Material. Seed.

481541. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by Bruns, C.; North American Plant Breeders; Berthoud, Colorado.

Received November 1983.

HS79-561. 'Buckshot'. United States. Waldron/Era/3/Angus/  
/Ciano/Tezano Pintos Precoz. Plants hard red spring type,  
semi-dwarf. Maturity medium to late. Straw strength  
medium to strong. Yield very good. Resistant to stem rust  
and moderately resistant to leaf rust under field  
conditions. Moderately susceptible to tan spot. Cultivar.  
Seed.

481542 TO 481544. *Triticum aestivum* L. (Poaceae) Common wheat.

From China, Peoples Repub of. Donated by Zhao, Y.; Jiangsu  
Academy of Agricultural Sciences; Nanjing, Jiangsu  
Province. Received through J.M. Foehlman, Dept. of  
Agronomy, Univ. of Missouri, Columbia.

Received October 1983.

481542. Su Mai No. 3. China, Peoples Repub of. Cultivated. Seed.

481543. Wan Shui Bai. China, Peoples Repub of. Cultivated. Seed.

481544. Xiangmai No. 1. China, Peoples Repub of. Cultivated.  
Seed.

481545 TO 481560. *Lupinus albus* L. (Fabaceae) White lupine.

From Soviet Union. Donated by N. I. Vavilov Institute of Plant  
Industry; Leningrad.

Received December 1983.

481545. VIR 494. Ethiopia. Cultivated. Seed.

481546. VIR 1437. Greece. Cultivated. Seed.

481547. VIR 1504. Hungary. Cultivated. Seed.

481548. VIR 1538. Bialy pozny. Poland. Cultivated. Seed.

481549. VIR 1550. Bulgaria. Cultivated. Seed.

481550. VIR 1600. Italy. Cultivated. Seed.

481551. VIR 1626. Egyptica Balady. Egypt. Cultivated. Seed.

481552. VIR 1644. Sudan. Cultivated. Seed.

481553. VIR 1662. Hadmerslebener Nahrquell. German Democratic



481545 TO 481560-continued

Repub. Cultivated. Seed.

- 481554. VIR 1801. Petkuser Bittere Weislupine. German Democratic  
Repub. Cultivated. Seed.
- 481555. VIR 1813. Weise Bitterlupine. German Democratic Repub.  
Cultivated. Seed.
- 481556. VIR 2005. Morocco. Cultivated. Seed.
- 481557. VIR 1820. Czechoslovakia. L-6-004/st.C. Cultivated. Seed.
- 481558. VIR 2229. Syria. Cultivated. Seed.
- 481559. VIR 2362. Spain. V-1586-B. Cultivated. Seed.
- 481560. VIR 2374. Yugoslavia. Cultivated. Seed.

481561 TO 481579. *Triticum aestivum* L. (Poaceae) Common wheat.

From Iraq. Donated by Sharif, A.T.; Plant Genetic Resources  
Division, Botany Directorate, Ministry of Agriculture and  
Agrarian Reform; Abu-Ghraib, Iraq. Received through  
International Board for Plant Genetic Resources (IBPGR),  
Rome, Italy.  
Received January 1983.

- 481561. IQ 13. Iraq. Cultivated. Seed.
- 481562. IQ 14. Iraq. Cultivated. Seed.
- 481563. IQ 53. Iraq. Cultivated. Seed.
- 481564. IQ 54. Iraq. Cultivated. Seed.
- 481565. IQ 61. Iraq. Cultivated. Seed.
- 481566. IQ 74. Iraq. Cultivated. Seed.
- 481567. IQ 83. Iraq. Cultivated. Seed.
- 481568. IQ 104. Iraq. Cultivated. Seed.
- 481569. IQ 105. Iraq. Cultivated. Seed.
- 481570. IQ 108. Iraq. Cultivated. Seed.
- 481571. IQ 109. Iraq. Cultivated. Seed.
- 481572. IQ 119. Iraq. Cultivated. Seed.
- 481573. IQ 209. Iraq. Cultivated. Seed.

481561 TO 481579-continued

- 481574. IQ 217. Iraq. Cultivated. Seed.
- 481575. IQ 218. Iraq. Cultivated. Seed.
- 481576. IQ 220. Iraq. Cultivated. Seed.
- 481577. IQ 224. Iraq. Cultivated. Seed.
- 481578. IQ 227. Iraq. Cultivated. Seed.
- 481579. IQ 228. Iraq. Cultivated. Seed.

481580 TO 481593. *Triticum durum* Desf. (Poaceae) Durum wheat.

From Iraq. Donated by Sharif, A.T.; Plant Genetic Resources Division, Botany Directorate, Ministry of Agriculture and Agrarian Reform; Abu-Ghraib, Iraq. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy.  
Received January 1983.

- 481580. IQ 7. Iraq. Cultivated. Seed.
- 481581. IQ 52. Iraq. Cultivated. Seed.
- 481582. IQ 97. Iraq. Cultivated. Seed.
- 481583. IQ 107. Iraq. Cultivated. Seed.
- 481584. IQ 117. Iraq. Cultivated. Seed.
- 481585. IQ 118. Iraq. Cultivated. Seed.
- 481586. IQ 122. Iraq. Cultivated. Seed.
- 481587. IQ 140. Iraq. Cultivated. Seed.
- 481588. IQ 219. Iraq. Cultivated. Seed.
- 481589. IQ 221. Iraq. Cultivated. Seed.
- 481590. IQ 222. Iraq. Cultivated. Seed.
- 481591. IQ 223. Iraq. Cultivated. Seed.
- 481592. IQ 225. Iraq. Cultivated. Seed.
- 481593. IQ 226. Iraq. Cultivated. Seed.

481594 TO 481610. *Amaranthus* sp. (Amaranthaceae).

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR; Department of Agriculture; Rome, Italy; Thimphu, Bhutan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481594. 62. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Medigang-Sisiding, Thimphu District. 1600m. Local original source. Red amaranth. Sown April, harvested October-November. Local name Zintshinap. Cultivated. Seed.
481595. 63. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Medigang-Sisiding, Thimphu District. 1600m. White amaranth. Sown April, harvested October-November. Seed used for food and beverage. Local name Zintshikap. Cultivated. Seed.
481596. 87. Bhutan. Latitude: 27 deg 32 m N; Longitude: 090 deg 07 m E. Collected September 01, 1981. Farm store, Nowang, Wangdi District. 1600m. Local original source. Sown April, harvested October. Seeds white. Local name Zinchikap. Cultivated. Seed.
481597. 104. Bhutan. Latitude: 27 deg 32 m N; Longitude: 089 deg 57 m E. Collected September 01, 1981. Farm store, Semina, Wangdi District. 1600m. Local original source. Sown June, harvested October. Seeds white. Local name Zinsikap. Cultivated. Seed.
481598. 132. Bhutan. Latitude: 27 deg 35 m N; Longitude: 089 deg 51 m E. Collected September 03, 1981. Farm store, Silipang, Punakha District. 1200m. Pure line from local original source. Sown April, harvested November. Used for human consumption as flour or like rice. Seeds white. Local name Zinsikap. Cultivated. Seed.
481599. 164. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 30 m E. Collected September 10, 1981. Farm store, Tsongsa Dzong, Pcengenang village, Tongsa District. 2250m. Local original source. Sown March, harvested September. Mature inflorescence red. Seeds pink. Local name Mudey. Cultivated. Seed.
481600. 203. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 45 m E. Collected September 11, 1981. Garden, Jakar village, Jakar District. 2700m. Local original source. Harvested in October. Local name Mudai. Cultivated. Seed.
481601. 228. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store and garden, Khampang, Lhuntshi District. 1800m. Sown April,

481594 TO 481610-continued

- harvested October. Seeds black, shiny. Local name Moo.  
Cultivated. Seed.
481602. 243. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store and garden, Khampang, Lhuntshi District. 1800m. Local original source. Sown March-April, harvested September-October. Seeds white, few red. Local name Moo Kharti. Cultivated. Seed.
481603. 284. Bhutan. Latitude: 27 deg 18 m N; Longitude: 091 deg 14 m E. Collected September 19, 1981. Farm store, Wangnakhar, Mongar District. 1300m. Local original source. Sown July, harvested October. Seeds white, few red. Local name Hasame. Cultivated. Seed.
481604. 380. Bhutan. Latitude: 27 deg 16 m N; Longitude: 091 deg 23 m E. Collected September 20, 1981. Farm store, Charkar, Mongar District. 1400m. Local original source. Weed in maize field. Seeds white. Local name Mo Baling. Weedy. Seed.
481605. 394. Bhutan. Latitude: 27 deg 37 m N; Longitude: 091 deg 31 m E. Collected September 21, 1981. Farm store, Rijigang, Tashigang District. 1750m. Local original source. Sown May-June, harvested October. Seeds white. Local name Mon. Cultivated. Seed.
481606. 403. Bhutan. Latitude: 27 deg 31 m N; Longitude: 090 deg 48 m E. Collected September 28, 1981. Garden, Yak and sheep research farm, 13km from Jakar Dzong, Jakar District. 2500m. Local original source. Seeds both red and white. Cultivated. Seed.
481607. 430. Bhutan. Latitude: 27 deg 20 m N; Longitude: 091 deg 37 m E. Collected September 27, 1981. Farm store, Kakanifrang, Biding block, Tashigang District. Sown March, harvested October. Seeds red. Local name Johar. Cultivated. Seed.
481608. 447. Bhutan. Latitude: 27 deg 33 m N; Longitude: 089 deg 40 m E. Garden, Decheling, 1 km N of Dechlencholing Palace, Thimphu Valley. 2200m. Local original source. Sown April, harvested October. Local names Sinichikap and Sinichinap. Cultivated. Seed.
481609. 455. Bhutan. Latitude: 27 deg 27 m N; Longitude: 089 deg 40 m E. Collected October 02, 1981. Farm store, Luntipha, Thimphu valley. 2150m. Local original source. Sown April, harvested October. Seeds white. Local name Sinchikap. Cultivated. Seed.
481610. 467. Bhutan. Latitude: 27 deg 23 m N; Longitude: 089 deg

481594 TO 481610-continued

37 m E. Collected October 02, 1981. Farm store, Namseling, Thimphu District. 2150m. Local original source. Sown February, harvested October. Seeds used as flour. Local name Sinchikap. Cultivated. Seed.

481611 TO 481617. *Cucumis sativus* L. (Cucurbitaceae) Cucumber.

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGB; Department of Agriculture; Rome, Italy; Thimphu, Bhutan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481611. 073. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Medigang-Sisiding, Thimphu District. 1600m. Local original source. Sown April, harvested May to June. Local name Jenchc. Cultivated. Seed.
481612. 086. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 01 m E. Collected September 01, 1981. Farm store, Teuchezampa, 13km E from Wangdiphrodrang, Wangdi District. Local original source. Sown February, harvested April. Local name Kenchu. Cultivated. Seed.
481613. 092. Bhutan. Latitude: 27 deg 32 m N; Longitude: 090 deg 07 m E. Collected September 01, 1981. Farm store, Nowang, Wangi District. 1600m. Local original source. Sown February, harvested May. Local name Goenchu. Cultivated. Seed.
481614. 166. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 30 m E. Collected September 10, 1981. Farm store, Tongsa Dzong-Poengenang village, Tongsa District. 2250m. Local original source. Sown March, harvested May. Local name Gagon. Cultivated. Seed.
481615. 234. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store, Khompang, 1 km SW of Lhuntshi Dfong Lhuntshi District. 2250m. Local original source. Sown April, harvested August-September. Local name Kagon. Cultivated. Seed.
481616. 357. Bhutan. Latitude: 27 deg 16 m N; Longitude: 019 deg 22 m E. Collected September 20, 1981. Farm store, Ngachang, Mongar District. 1400m. Local original source. Sown April, harvested September. Local name Mamphung. Cultivated. Seed.
481617. 457. Bhutan. Latitude: 27 deg 27 m N; Longitude: 089 deg 40 m E. Collected October 02, 1981. Farm store, Luntiphu, Thimphu valley. 2150m. Local original source. Sown April,

481611 TO 481617-continued

harvested June. Cultivated. Seed.

481618 TO 481627. *Cucurbita pepo* L. (Cucurbitaceae).

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IEPGR; Department of Agriculture; Rome, Italy; Thimphu, Bhutan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481618. 8. Bhutan. Latitude: 27 deg 30 m N; Longitude: 089 deg 19 m E. Collected August 28, 1981. Shop, 1 km to Paro from Chento, Paro District. 2500m. Local original source. Sown April, harvested end of August. Fruits with pale flesh, large, green. Local name Kakaru. Cultivated. Seed.
481619. 70. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Store, Mendigang-Sisiding, Thimphu District. 1600m. Local original source. Sown April, harvested September. Fruits round with brown skin. Local name Kakara. Cultivated. Seed.
481620. 77. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. From store, Mendigang-Sisiding, Thimphu District. 1600m. Sown April, harvested September. Fruits large, round with mottled skin color. Seeds few. Local name Kokru. Cultivated. Seed.
481621. 204. Bhutan. Latitude: 27 deg 33 m N; Longitude: 090 deg 45 m E. Collected August 31, 1981. Garden, Jakar village, Jakar District. 2700m. Harvested September. Local name Phi Kakara. Cultivated. Seed.
481622. 235. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store and garden 1 km SW from Lhuntshi Dzong, Lhuntshi District. 1800m. Local original source. Sown April, harvested August-September. Fruits small, round with white or green rind. Local name Haushar. Cultivated. Seed.
481623. 236. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store and garden 1 km SW from Lhuntshi Dzong, Lhuntshi District. 1800m. Originally from Thimphu. Sown April, harvested August-September. Fruits very large (20kg or more), less favorable than PI 481622, used for animal feed. Cultivated. Seed.
481624. 312. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 17 m E. Collected September 19, 1981. Farm store, Thindambi block, Mongar District. 1700m. Local original source. Sown March, harvested September. Local name

481618 TO 481627-continued

Brumsha. Cultivated. Seed.

481625. 358. Bhutan. Latitude: 27 deg 16 m N; Longitude: 091 deg 22 m E. Collected September 20, 1981. Farm store, Ngachang, Mongar District. 1400m. Local original source. Sown April, harvested September. Fruits large. Local name Brumsa Kathang. Cultivated. Seed.
481626. 472. Bhutan. Latitude: 27 deg 23 m N; Longitude: 089 deg 37 m E. Collected October 02, 1981. Farm store, Namseling, Thimphu District. 2150m. Local original source. Sown May, harvested September-October. Local name Kakura. Cultivated. Seed.
481627. 482. Bhutan. Latitude: 27 deg 21 m N; Longitude: 089 deg 37 m E. Collected October 02, 1981. Farm store, 3km from Sising, Thimphu valley, Thimphu District. 2100m. Local original source. Sown February, harvested September. Local name Kukura. Cultivated. Seed.

481628 TO 481643. *Fagopyrum esculentum* Moench (Polygonaceae) Buckwheat.

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR; Department of Agriculture; Rome, Italy; Thimphu, Bhutan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481628. 1. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 19 m E. Collected August 28, 1981. Farm store, Chento village, Paro District. 2500m. Local original source. Sown August, harvested November-December. Local name Gereh (sweet buckwheat). Cultivated. Seed.
481629. 17. Bhutan. Latitude: 27 deg 27 m N; Longitude: 089 deg 22 m E. Collected August 28, 1981. Farm store, Langona, Paro District. 2400m. Local original source. Sown August, harvested November-December. Local name Gereh. Cultivated. Seed.
481630. 23. Bhutan. Latitude: 27 deg 16 m N; Longitude: 089 deg 31 m E. Collected August 29, 1981. Farm store, Phaka-Dawakha, Paro District. 2300m. Sown August, harvested September-October. Local name Gereh. Cultivated. Seed.
481631. 28. Bhutan. Latitude: 27 deg 15 m N; Longitude: 089 deg 25 m E. Collected August 29, 1981. Farm store, Sati, Paro District. 2600m. Local original source. Sown March, harvested August. Local name Gereh. Cultivated. Seed.
481632. 35. Bhutan. Latitude: 27 deg 16 m N; Longitude: 089 deg 21 m E. Collected August 29, 1981. Farm store, Lamchi,

481628 TO 481643-continued

- Paro District, Dunj Ramjam division. 2650m. Local original source. Sown June-July, harvested September-October. Local name Gereh. Cultivated. Seed.
481633. 116. Bhutan. Latitude: 27 deg 39 m N; Longitude: 089 deg 53 m E. Collected September 03, 1981. Farm store, Dawakha, Punakha District. 1600m. Local original source. Local name Gereh. Cultivated. Seed.
481634. 171. Bhutan. Latitude: 27 deg 31 m N; Longitude: 090 deg 41 m E. Collected September 10, 1981. Farm store, Donkhar, Jakar District. 2950m. Local original source. Sown June, harvested October. Seeds mixed with sour buckwheat (*F. tataricum*). Local name Chara. Cultivated. Seed.
481635. 186. Bhutan. Latitude: 27 deg 34 m N; Longitude: 090 deg 44 m E. Collected September 11, 1981. Farm store, Pangrey, Jakar District. 2700m. Local original source. Sown June-July, harvested October. Local name Chara. Cultivated, Seed.
481636. 211. Bhutan. Latitude: 27 deg 28 m N; Longitude: 090 deg 53 m E. Collected September 12, 1981. Farm store, Ura Pangkhar, Jakar District. 3300m. Sown June, harvested October. Local name Charai. Cultivated. Seed.
481637. 274. Bhutan. Latitude: 27 deg 35 m N; Longitude: 091 deg 12 m E. Collected September 18, 1981. Farm store, Bamendaangsa, Lhuntshi District. 1650m. Local original source. Sown August-October, harvested November-December. Local name Chara. Cultivated. Seed.
481638. 277. Bhutan. Latitude: 27 deg 18 m N; Longitude: 091 deg 14 m E. Collected September 19, 1981. Farm store, Nangmakhar, Mongar District. 1300m. Local original source. Sown September, harvested November. Local name Chara. Cultivated. Seed.
481639. 299. Bhutan. Latitude: 27 deg 15 m N; Longitude: 091 deg 11 m E. Collected September 19, 1981. Farm store, Changchu Khoi, Mongar District. 1700m. Local original source. Sown September, harvested November-December. Local name Gunchung. Cultivated. Seed.
481640. 304. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 17 m E. Collected September 19, 1981. Farm store, Thindambi block, Mongar District. 1700m. Local original source. Sown March, harvested July. Local name Gun Chung. Cultivated. Seed.
481641. 330. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 13 m E. Collected September 19, 1981. Farm store,



481628 TO 481643-continued

Phossang block, Mongor District. 1700m. Local original source. Sown first week September, harvested December. Local name Braima Guelem. Cultivated. Seed.

481642. 373. Bhutan. Latitude: 27 deg 16 m N; Longitude: 091 deg 23 m E. Collected September 20, 1981. Farm store, Chaskar, Mongar District. 1400m. Local original source. Sown August, harvested November-December. Local name Gachu. Cultivated. Seed.

481643. 411. Bhutan. Latitude: 27 deg 20 m N; Longitude: 091 deg 37 m E. Collected September 27, 1981. Farm store, Kakani frang, Bidung block, Toshigang District. 1600m. Local original source. Sown August, harvested November-December. Cultivated. Seed.

481644 TO 481675. *Fagopyrum tataricum* (L.) Gaertn. (Polygonaceae).

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR; Department of Agriculture; Rome, Italy; Thimphu, Bhutan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481644. 2. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 19 m E. Collected August 28, 1981. Farm store, Chento village, Paro District. 2500m. Local original source. Sown April, harvested July. Local name Joho. Cultivated. Seed.

481645. 18. Bhutan. Latitude: 27 deg 27 m N; Longitude: 089 deg 22 m E. Collected August 28, 1981. Farm store, Longona, 7km N of Paro near Joygarthang. 2400m. Local original source. Sown April, harvested July. Local name Joho. Cultivated. Seed.

481646. 24. Bhutan. Latitude: 27 deg 16 m N; Longitude: 089 deg 31 m E. Collected August 29, 1981. Farm store, Phaka-Dowakha, Paro District. 2300m. First crop planted August, harvested September-October, second crop planted March, harvested June-July. Local name Joho. Cultivated. Seed.

481647. 29. Bhutan. Latitude: 27 deg 15 m N; Longitude: 089 deg 25 m E. Collected August 29, 1981. Farm store, Sali. 2600m. Local original source. Sown March, harvested August. Local name Joho. Cultivated. Seed.

481648. 39. Bhutan. Latitude: 27 deg 18 m N; Longitude: 089 deg 19 m E. Collected August 29, 1981. Farm store, Balumna, Ha District. 2750m. Local original source. Habitat pine forest. First crop sown May, harvested September, second crop sown March, harvested July. Local name Joho.

481644 TO 481675-continued

Cultivated. Seed.

481649. 42. Bhutan. Latitude: 27 deg 25 m N; Longitude: 089 deg 14 m E. Collected August 30, 1981. Farm store, Geychuka, Ha District. 2850m. Local original source. Sown April, harvested July-August. Local name Joho. Cultivated. Seed.
481650. 83. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 01 m E. Collected September 01, 1981. Farm store, Teuchezampa, Wangdi District. 1500m. Local original source. Sown March, harvested June. Local name Joho. Cultivated. Seed.
481651. 89. Bhutan. Latitude: 27 deg 32 m N; Longitude: 090 deg 07 m E. Collected September 01, 1981. Farm store, Nowang, Wangdi District. 1600m. Local original source. Sown February, harvested May. Local name Joho. Cultivated. Seed.
481652. 106. Bhutan. Latitude: 27 deg 32 m N; Longitude: 089 deg 57 m E. Collected September 01, 1981. Farm store, Hishawa, Wangdi District. 1600m. Local original source. Sown February, harvested June. Local name Joho. Cultivated. Seed.
481653. 117. Bhutan. Latitude: 27 deg 35 m N; Longitude: 089 deg 52 m E. Collected September 03, 1981. Farm store, Mindagang, along Pho Chu river, Punakha District. 1200m. Local original source. Sown March-April, harvested June-July. Local name Joho. Cultivated. Seed.
481654. 123. Bhutan. Latitude: 27 deg 35 m N; Longitude: 089 deg 52 m E. Collected September 03, 1981. Farm store, Gangsabu, Punakha District. 1300m. Sown August, harvested November. Seeds mixed brown and black. Local name Joho. Cultivated. Seed.
481655. 125. Bhutan. Latitude: 27 deg 35 m N; Longitude: 089 deg 51 m E. Collected September 03, 1981. Farm store, Iaikha, Punakha District. 1200m. Local original source. Sown December, harvested March. Local name Joho. Cultivated. Seed.
481656. 143. Bhutan. Latitude: 27 deg 31 m N; Longitude: 090 deg 15 m E. Collected September 09, 1981. Farm store, Rukubji Bumula, Wangdi District. 2850m. Sown April, harvested August. Seeds black. Local name Joho. Cultivated. Seed.
481657. 150. Bhutan. Latitude: 27 deg 27 m N; Longitude: 090 deg 24 m E. Collected September 09, 1981. Farm store, Sakacheo, Tongsa District. 2400m. Local original source. Sown March, harvested June. Seeds brown. Local name Joho. Cultivated. Seed.

481644 TO 481675-continued

481658. 152. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 30 m E. Collected September 10, 1981. Farm store, Tongsa Dzong, Poengenang village, Tongsa District. 2250m. Local original source. Sown April, harvested July. Local name Joho. Cultivated. Seed.
481659. 172. Bhutan. Latitude: 27 deg 31 m N; Longitude: 090 deg 41 m E. Collected September 10, 1981. Farm store, Donkhar, Jakar District. 2950m. Local original source. Sown June, harvested October. Local name Brama. Cultivated. Seed.
481660. 176. Bhutan. Latitude: 27 deg 33 m N; Longitude: 090 deg 45 m E. Collected September 11, 1981. Farm store, Jakar village (Bumthang), Jakar District. 2700m. Local original source. Local name Joho. Cultivated. Seed.
481661. 184. Bhutan. Latitude: 27 deg 34 m N; Longitude: 090 deg 44 m E. Collected September 11, 1981. Farm store, Pangrey, Jakar District. 2700m. Local original source. Sown April, harvested August. Local name Bradma. Cultivated. Seed.
481662. 189. Bhutan. Latitude: 27 deg 34 m N; Longitude: 090 deg 44 m E. Collected September 11, 1981. Farm store, Pangrey, Jakar District, grown 10km N at Tukchan. 2700m. Local original source. Sown May, harvested September. Adapted to very high altitudes. Local name Gonho. Cultivated. Seed.
481663. 213. Bhutan. Latitude: 27 deg 28 m N; Longitude: 090 deg 53 m E. Collected September 12, 1981. Farm store, Ura Pangkhar, Jakar District. 3300m. Local original source. Sown April, harvested September. Local name Brasna. Cultivated. Seed.
481664. 218. Bhutan. Latitude: 27 deg 22 m N; Longitude: 090 deg 02 m E. Collected September 13, 1981. Farm store, Sengor, Mongar District. 3000m. Local original source. Sown April, harvested October. Mixed with mustard crop. Local name Bradma. Cultivated. Seed.
481665. 226. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store, Khomtang, Lhuntshi District. 1800m. Local original source. Sown April, harvested May. Seeds brown, some black. Local name Brama. Cultivated. Seed.
481666. 269. Bhutan. Latitude: 27 deg 35 m N; Longitude: 091 deg 12 m E. Collected September 18, 1981. Farm store, Bunendangsa, Lhuntshi District. 1650m. Local original source. Sown July-August, harvested November-December.

481644 TO 481675-continued

Local name Brama. Cultivated. Seed.

481667. 287. Bhutan. Latitude: 27 deg 18 m N; Longitude: 091 deg 14 m E. Collected September 19, 1981. Farm store, Wangmakhar, Mongar District. 1300m. Local original source. Sown July-August, harvested November. Local name Brama. Cultivated. Seed.
481668. 290. Bhutan. Latitude: 27 deg 18 m N; Longitude: 091 deg 15 m E. Collected September 19, 1981. Farm store, Karmareng, Mongar District. 1400m. Local original source. Sown April, harvested June. Local name Brama. Cultivated. Seed.
481669. 306. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 17 m E. Collected September 19, 1981. Farm store, Thindambi block, Mongar District. 1700m. Local original source. Sown March, harvested June. Cultivated. Seed.
481670. 322. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 18 m E. Collected September 19, 1981. Farm store, Venkhar block, Mongar District. 1600m. Local original source. Sown February-March, harvested June-July. Local name Khala. Cultivated. Seed.
481671. 335. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 13 m E. Collected September 19, 1981. Farm store, Phassang block, Mongar District. 1700m. Local original source. Sown May or September, harvested September or December. Local name Khala. Cultivated. Seed.
481672. 372. Bhutan. Latitude: 27 deg 16 m N; Longitude: 091 deg 23 m E. Collected September 20, 1981. Farm store, Chaskar, Mongar District. 1600m. Local original source. Sown March, harvested July. Local name Kala. Cultivated. Seed.
481673. 395. Bhutan. Latitude: 27 deg 37 m N; Longitude: 091 deg 31 m E. Collected September 21, 1981. Farm store, Rijigang, Tashigang District. 1750m. Local original source. Sown March, harvested June. Local name Brano. Cultivated. Seed.
481674. 450. Bhutan. Latitude: 27 deg 23 m N; Longitude: 089 deg 37 m E. Collected October 02, 1981. Farm store, Luntiphu, Thimphu valley, Thimphu District. 2150m. Local original source. Sown February, harvested May. Local name Joho. Cultivated. Seed.
481675. 463. Bhutan. Latitude: 27 deg 23 m N; Longitude: 089 deg 37 m E. Collected October 02, 1981. Farm store, Nanseling, Thimphu valley, Thimphu District. 2150m. Local original source. Sown February, harvested May. Local name

481644 TO 481675-continued  
Joho. Cultivated. Seed.

481676 TO 481691. *Glycine max* (L.) Merr. (Fabaceae) Soybean.

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR; Department of Agriculture; Rome, Italy; Thimphu, Bhutan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481676. 65. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Mendigang-Sisiding, Thimphu District. 1600m. Local original source. Sown April-May, harvested October-November. Pods non-shattering. Seeds white. Local name Sinchumkap. Cultivated. Seed.
481677. 66. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Mendigang-Sisiding, Thimphu District. 1600m. Local original source. Sown April-May, harvested October-November. Local name Sinchumnap. Cultivated. Seed.
481678. 170. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 30 m E. Collected September 10, 1981. Farm store, Tongsa Dzong, Poengernang village, Tongsa District. 2250m. Local original source. Sown March-April, harvested September-October. Seeds white. Local name Shiooley. Cultivated. Seed.
481679. 232. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store, Khompang, Lhuntshi District. 1800m. Plants erect, earlier maturing than PI 481680. Sown April, harvested September. Seeds brown. Local name Shauling Ngunti. Cultivated. Seed.
481680. 233. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store, Khompang, Lhuntshi District. 1800m. Plants creeping among maize crop. Sown April, harvested October. Seeds white. Local name Shauling Kharti. Cultivated. Seed.
481681. 253. Bhutan. Latitude: 27 deg 41 m N; Longitude: 091 deg 11 m E. Collected September 17, 1981. Farm store, Bordapang, Lhuntshi District. 1350m. Local original source. Sown March, harvested April. Seeds brown. Local name Shauling-Ngunti. Cultivated. Seed.
481682. 254. Bhutan. Latitude: 27 deg 41 m N; Longitude: 091 deg 11 m E. Collected September 17, 1981. Farm store, Bordapang, Lhuntshi District. 1350m. Local original source. Sown March, harvested May. Seeds white. Local

481676 TO 481691-continued

name Shauling Kharti. Cultivated. Seed.

481683. 266. Bhutan. Latitude: 27 deg 35 m N; Longitude: 091 deg 12 m E. Collected September 18, 1981. Farm store, Banendangsa, Lhuntshi District. 1650m. Local original source. Sown March-April, harvested September-October. Seeds white. Local name Shauling Kharti. Cultivated. Seed.
481684. 282. Bhutan. Latitude: 27 deg 18 m N; Longitude: 091 deg 14 m E. Collected September 19, 1981. Farm store, Wangmakhar, Mongar District. 1300m. Local original source. Sown March-April, harvested September. Seeds brown and black. Local name Shauling. Cultivated. Seed.
481685. 311. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 17 m E. Collected September 19, 1981. Farm store, Thindambi block, E from Mongor Dzong, Mongor District. 1700m. Local original source. Sown March, harvested September. Seeds brown. Local name Libi. Cultivated. Seed.
481686. 341. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 15 m E. Collected September 19, 1981. Farm store, Pirbi block, Mongar District. 1500m. Local original source. Sown February-March, harvested September. Seeds brown. Local name Libi. Cultivated. Seed.
481687. 352. Bhutan. Latitude: 27 deg 16 m N; Longitude: 091 deg 22 m E. Collected September 20, 1981. Napchang, Mongar District. 1400m. Local original source. Sown March, harvested September. Seeds brown. Local name Lephe. Cultivated. Seed.
481688. 385. Bhutan. Latitude: 27 deg 23 m N; Longitude: 091 deg 36 m E. Collected September 20, 1981. Market, Lungtenzampa, Tashigang District. 700m. Sown April, harvested August-September. Local name Libi. Cultivated. Seed.
481689. 388. Bhutan. Latitude: 27 deg 37 m N; Longitude: 091 deg 31 m E. Collected September 21, 1981. Farm store, Rijigang, Tashigang District. 1750m. Local original source. Sown June, harvested October. Local name Shiuli. Cultivated. Seed.
481690. 406. Bhutan. Latitude: 27 deg 20 m N; Longitude: 091 deg 37 m E. Collected September 27, 1981. Farm store, Kenanifrang, Bidung block. 1400m. Local original source. Sown March, harvested October. Seeds brown. Local name Reybi. Cultivated. Seed.
481691. 442. Bhutan. Latitude: 27 deg 34 m N; Longitude: 091 deg 37 m E. Collected October 02, 1981. Farm store, Kabgesa, 1.5km N of Dechtencholing, Thimphu valley. 2200m. Local

481676 TO 481691-continued

original source. Sown May, harvested October. Seeds white some brown. Local name Sinkap. Cultivated. Seed.

481692 TO 481697. *Lablab purpureus* (L.) Sweet (Fabaceae) Hyacinth bean.

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR, Department of Agriculture. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481692. 71. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Mendigang-Sisiding, Thimphu District. 1600m. Local original source. Sown April, harvested November. Pods and seeds white. Received as unknown legume. Cultivated. Seed.
481693. 75. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Mendigang-Sisiding, Thimphu District. 1600m. Local original source. Sown April, harvested November. Seeds black. Local name Patang Simchunap. Received as *Lablab niger*. Cultivated. Seed.
481694. 134. Bhutan. Latitude: 27 deg 35 m N; Longitude: 089 deg 51 m E. Collected September 03, 1981. Farm store, Siligang, Punakha District. 1200m. Sown June-July, harvested October-November. Seeds white. Local name Sinchukap. Received as *Lablab niger*. Cultivated. Seed.
481695. 160. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 30 m E. Collected September 10, 1981. Farm store, Tongsa Dzong, Poengonang village, Tongsa District. 2250m. Local original source. Sown March, harvested September. Local name Pata Sinchun. Received as *Lablab niger*. Cultivated. Seed.
481696. 249. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store, Khompang, Lhuntshi District. 1800m. Local original source. Sown April, harvested October-November. Local name Patans Shepe. Received as *Lablab niger*. Cultivated. Seed.
481697. 398. Bhutan. Latitude: 27 deg 37 m N; Longitude: 091 deg 31 m E. Collected September 21, 1981. Farm store, Rijigang, Tashigang District. 1750m. Local original source. Sown April, harvested November. Local name Cha Shepai. Received as *Lablab niger*. Cultivated. Seed.

481698 TO 481699. *Luffa* sp. (Cucurbitaceae).

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR;

481698 TO 481699-continued

Department of Agriculture; Rome, Italy; Thimphu, Bhutan.  
Received through International Board for Plant Genetic  
Resources (IBPGR), Rome, Italy.  
Received May 1982.

481698. 22. Bhutan. Latitude: 27 deg 16 m N; Longitude: 089 deg 31 m E. Collected August 29, 1981. Local garden, Phaka-Dowakha, Paro District. 2300m. Plants climbing with hemp-like leaves and tendrils. Sown March-April, harvested August-September. Pods 7cm long, green. Seeds irregular, black. Used as vegetable. Local name Olechoto. Cultivated. Seed.

481699. 187. Bhutan. Latitude: 27 deg 34 m N; Longitude: 090 deg 44 m E. Collected September 11, 1981. Farm store, Pangrey, Jakar District. 2700m. Local original source. Sown February-March, harvested September-October. Local name Bantho (Olochoto). Cultivated. Seed.

481700 TO 481705. *Perilla frutescens* (L.) Britt (Lamiaceae) *Perilla*.

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR;  
Department of Agriculture; Rome, Italy; Thimphu, Bhutan.  
Received through International Board for Plant Genetic  
Resources (IBPGR), Rome, Italy.  
Received May 1982.

481700. 064. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Mendigang-Sididing, Thimphu District. 1600m. Sown April, harvested October-November. Oil content high. Local name Zintshinam. Cultivated. Seed.

481701. 090. Bhutan. Latitude: 27 deg 32 m N; Longitude: 090 deg 07 m E. Collected September 01, 1981. Farm store, Nowang, Wangdi District. 1600m. Sown April, harvested October. Local name Zintshinam. Cultivated. Seed.

481702. 237. Bhutan. Latitude: 27 deg 40 m N; Longitude: 091 deg 10 m E. Collected September 17, 1981. Farm store, Khompang, Lhuntshi District. 1800m. Sown April, harvested October. Seeds large, white and brown. White seed easier to pound and tastier. Seeds used for oil. Local name Nam. Cultivated. Seed.

481703. 292. Bhutan. Latitude: 27 deg 18 m N; Longitude: 091 deg 16 m E. Collected September 19, 1981. Farm store, Nakchang, Mongar District. 1500m. Sown May, harvested October. Seed used for oil. Local name Nam. Cultivated. Seed.

481704. 448. Bhutan. Latitude: 27 deg 27 m N; Longitude: 089 deg



481700 TO 481705-continued

40 m E. Collected October 02, 1981. Farm store, Luntiphu, Thimphu District. 2150m. Sown April, harvested October. Local name Zintshinam. Cultivated. Seed.

481705. 464. Bhutan. Latitude: 27 deg 23 m N; Longitude: 089 deg 37 m E. Collected October 02, 1981. Farm store, Namseling, Thimphu District. 2150m. Sown January, harvested October. Local name Zintshinam. Cultivated. Seed.

481706 TO 481707. *Saccharum* sp. (Poaceae).

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR; Department of Agriculture; Rome, Italy, Thimphu, Bhutan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481706. 400. Bhutan. Latitude: 27 deg N; Longitude: 091 deg E. Collected September 24, 1981. Alluvial Island, Samdrup Jongkhor, 0.5km upstream from river bridge. 300m. Plants 1-3m tall. Stems 5-12mm in diameter with heavy wax deposit at nodes. Inflorescence white. Received as unknown grass. Wild. Seed.

481707. 438. Bhutan. Latitude: 27 deg 28 m N; Longitude: 089 deg 54 m E. Collected September 29, 1981. Field, N from Wangdiphodrang Dzong, Wangdi District. 1250m. Plants abundant. Received as unknown grass. Wild. Seed.

481708 TO 481731. *Triticum aestivum* L. (Poaceae) Common wheat.

From Bhutan. Collected by Croston, R.P.; Dorji, T.; IBPGR; Department of Agriculture; Rome, Italy; Thimphu, Bhutan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received May 1982.

481708. 3. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 19 m E. Collected August 28, 1981. Farm store, Chento village, Paro District. 2500m. Local original source. Sown September harvested June. Local name Ka. Winter Annual. Cultivated. Seed.

481709. 26. Bhutan. Latitude: 27 deg 15 m N; Longitude: 089 deg 25 m E. Collected August 29, 1981. Farm store, Sali, Paro District. 2600m. Originally from India. Farmer perpetuated seedstocks. Sown August-September, harvested June-July. Heads variable. Local name Ka. Winter Annual. Cultivated. Seed.

481708 TO 481731-continued

481710. 32. Bhutan. Latitude: 27 deg 16 m N; Longitude: 089 deg 21 m E. Collected August 29, 1981. Lamchi, Paro District, Dunj Ramjan Division. 2650m. Originally from Wangdisha area. Plants highly variable. Sown September, harvested May. Local name Ka. Winter Annual. Cultivated. Seed.
481711. 36. Bhutan. Latitude: 27 deg 16 m N; Longitude: 089 deg 21 m E. Collected August 29, 1981. Shop, Rowashugo, 41km S from Ha, Para District, Dunj Ramjan area. 2700m. Long term local production, perhaps originally from Tibet. Sown September, harvested June-July. Local name Jho. Winter Annual. Cultivated. Seed.
481712. 38. Bhutan. Latitude: 27 deg 18 m N; Longitude: 089 deg 19 m E. Collected August 29, 1981. Farm store, Balumna, 12km S of Ha, Ha District. 2750m. Local original source. Sown October, harvested June-July. Local name Jho (Ka). Winter Annual. Cultivated. Seed.
481713. 41. Bhutan. Latitude: 27 deg 25 m N; Longitude: 089 deg 14 m E. Collected August 30, 1981. Farm store, Geychuka, 9km N of Ha, Ha District. 2850m. Local original source. Plants very tall, top internode 50cm long. Sown September, harvested June. Heads awned. Winter Annual. Cultivated. Seed.
481714. 51. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Mendigang-Sisiding, 52km from Thimphu, Thimphu District. 1600m. Originally from Bumthang. Sown October, harvested April. Heads awned. Local name Ka. Winter Annual. Cultivated. Seed.
481715. 52. Bhutan. Latitude: 27 deg 31 m N; Longitude: 089 deg 49 m E. Collected August 31, 1981. Farm store, Mendigang-Sididing, 52km from Thimphu, Thimphu District. 1600m. Local original source. Sown October, harvested April. Local name Ka. Winter Annual. Cultivated. Seed.
481716. 80. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 01 m E. Collected September 01, 1981. Farm store, Teuchezampa, Wangdi District. 1500m. Local original source. Sown November, harvested May. Local name Ka. Winter Annual. Cultivated. Seed.
481717. 97. Bhutan. Latitude: 27 deg 32 m N; Longitude: 090 deg 07 m E. Collected September 01, 1981. Farm store, Nowang, Wangdi District. 1600m. Local original source. Sown December, harvested May. Yield consistent over time. Seeds store well. Used for wine making. Preferred over Sonalika variety. Local name Ka. Winter Annual. Cultivated. Seed.

481708 TO 481731-continued

481718. 101. Bhutan. Latitude: 27 deg 32 m N; Longitude: 089 deg 57 m E. Collected September 01, 1981. Farm store, Semina, 15km from Wangdi District. 1600m. Local original source. Sown December, harvested May. Winter Annual. Cultivated. Seed.
481719. 115. Bhutan. Latitude: 27 deg 26 m N; Longitude: 089 deg 55 m E. Collected September 02, 1981. Farm store, Dongshu, Wangdi District. 1250m. Local original source. Sown November, harvested April. Local name Ka. Winter Annual. Cultivated. Seed.
481720. 142. Bhutan. Latitude: 27 deg 31 m N; Longitude: 090 deg 15 m E. Collected September 09, 1981. Farm store, Rukubi-Bumulu, Wangdi District. 2850m. Sown September, harvested July. Local name Ka. Winter Annual. Cultivated. Seed.
481721. 148. Bhutan. Latitude: 27 deg 27 m N; Longitude: 090 deg 24 m E. Collected September 09, 1981. Farm store, Sakacheo, Tongsa District. 2400m. Local original source. Sown September, harvested July. Local name Ka. Winter Annual. Cultivated. Seed.
481722. 151. Bhutan. Latitude: 27 deg 30 m N; Longitude: 090 deg 30 m E. Collected September 01, 1981. Farm store, Tongsa Dzong, Poengernang village, Tongsa District. 2250m. Local original source. Sown October, harvested May. Local name Ka. Winter Annual. Cultivated. Seed.
481723. 173. Bhutan. Latitude: 27 deg 31 m N; Longitude: 090 deg 41 m E. Collected September 10, 1981. Farm store, Donkhar, 24km W OF Jakar Dzong, Jakar District. 2950m. Local original source. Sown October, harvested July. Local name Go. Winter Annual. Cultivated. Seed.
481724. 178. Bhutan. Latitude: 27 deg 33 m N; Longitude: 090 deg 45 m E. Collected September 11, 1981. Farm store, Jakar village (Bunthang), Jakar District. 2700m. Local original source. Local name Ka. Cultivated. Seed.
481725. 182. Bhutan. Latitude: 27 deg 34 m N; Longitude: 090 deg 44 m E. Collected September 11, 1981. Farm store, Pangrey, Jakar District. 2700m. Local original source. Sown September, harvested July. Local name Go. Winter Annual. Cultivated. Seed.
481726. 210. Bhutan. Latitude: 27 deg 28 m N; Longitude: 090 deg 53 m E. Collected September 12, 1981. Farm store, Ura Pongkhar, Jakar District. 3300m. Local original source. Sown October, harvested August. Seeds small. Local name Go. Winter Annual. Cultivated. Seed.

481708 TO 481731-continued

481727. 302. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 17 m E. Collected September 19, 1981. Farm store, Thimdambi block, Mongar District. 1700m. Local original source. Sown September, harvested March. Local name Dosherbong. Winter Annual. Cultivated. Seed.
481728. 338. Bhutan. Latitude: 27 deg 17 m N; Longitude: 091 deg 31 m E. Collected September 19, 1981. Farm store, Phassang block, Mongar District. 1700m. Local original source. Sown September, harvested May-June. Severe weevil damage. Local name Bong. Winter Annual. Cultivated. Seed.
481729. 365. Bhutan. Latitude: 27 deg 16 m N; Longitude: 091 deg 23 m E. Collected September 20, 1981. Farm store, Chaskar, Mongar District. 1700m. Local original source. Sown October-November, harvested June-July. Local name Bithpu Bong. Winter Annual. Cultivated. Seed.
481730. 444. Bhutan. Latitude: 27 deg 34 m N; Longitude: 089 deg 40 m E. Collected October 02, 1981. Farm store, Thimphu valley, Thimphu District. 2200m. Local original source. Sown October, harvested May. Local name Ka. Winter Annual. Cultivated. Seed.
481731. 451. Bhutan. Latitude: 27 deg 27 m N; Longitude: 089 deg 40 m E. Collected October 02, 1981. Farm store, Luntiphu, Thimphu District. 2150m. Local original source. Sown November harvested May. Local name Ka. Winter Annual. Cultivated. Seed.

481732 TO 481814. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Mozambique. Collected by Perret, P.M.; Malithano, A.D.; Rao, V.R.; IBPGR; National Inst. of Res. in Agronomy; International Crops Res. Inst. for the Semi-Arid Tropics; Rome, Italy; Maputo, Mozambique; Patancheru, India. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received September 1981.

481732. RPM 002. Mozambique. Collected April 1981. Field, 16km from Nampula to Nametil, Nampula Province. Spanish like with alternate branching. Local name Mative. Cultivar. Seed.
481733. RPM 003. Mozambique. Collected April 1981. Field, 15km from Nampula to Corrane, Nampula Province. Severe termite damage. Local name Mative. Cultivar. Seed.
481734. RPM 004. Mozambique. Collected April 1981. Field, 32km from Nampula to Corrane, Nampula Province. Plants erect,

481732 TO 481814-continued

- bunch type. Local name Mative. Cultivar. Seed.
481735. RPM 005. Mozambique. Collected April 1981. Field, Nampula-Corrane, Nampula Province. Plants erect, bunch type. Local name Mative. Cultivar. Seed.
481736. RPM 007. Mozambique. Collected April 1981. Field, Nampula-Corrane, Nampula Province. Plants spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481737. RPM 009. Mozambique. Collected April 1981. Field, Corrane-Iiupo, Nampula Province. Local name Mative. Cultivar. Seed.
481738. RPM 011. Mozambique. Collected April 1981. Field, Corrane-Iiupo, Nampula Province. Local name Mative. Cultivar. Seed.
481739. RPM 012. Mozambique. Collected April 1981. Field, Naula-Quixaxe, Nampula Province. Local name Mative. Cultivar. Seed.
481740. RPM 013. Mozambique. Collected April 1981. Field, Quixaxe-Monapo, Nampula Province. Severe pod damage. Local name Mative. Cultivar. Seed.
481741. RPM 014. Mozambique. Collected April 1981. Field, Quixaxe-Monapo, Nampula Province. Severe pod borer damage. Local name Mative. Cultivar. Seed.
481742. RPM 015. Mozambique. Collected April 1981. Field, 15km from Nampula to Namialo, Nampula. Local name Mative. Cultivar. Seed.
481743. RPM 016. Mozambique. Collected April 1981. Field, 30km Nampula to Namialo, Nampula Province. Local name Mative. Cultivar. Seed.
481744. RPM 017. Mozambique. Collected April 1981. Field, Napai, Nampula Province. Plants spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481745. RPM 018. Mozambique. Collected April 1981. Field, Amperini, Nampula Province. Plants spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481746. RPM 019. Mozambique. Collected April 1981. Field, Namiropera, Nampula Province. Local name Mative. Cultivar. Seed.
481747. RPM 020. Mozambique. Collected April 1981. Field, Namilero, Nampula Province. Good root nodulation. Local name Mative. Cultivar. Seed.

481732 TO 481814-continued

481748. RPM 023. Mozambique. Collected April 1981. Field, Napeio, Nampula Province. Plants erect and spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481749. RPM 024. Mozambique. Collected April 1981. Field Mendazi, Nampula Province. Plants spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481750. RPM 025. Mozambique. Collected April 1981. Field, Natikiri, Nampula Province. Plants spreading bunch type. Local name Mative. Cultivar. Seed.
481751. RPM 026. Mozambique. Collected April 1981. Field, Natikiri, Nampula Province. Plants spreading bunch type. Local name Mative. Cultivar. Seed.
481752. RPM 028. Mozambique. Collected April 1981. Field, Matamande, Napula Province. Plants spreading bunch type with runners. Some erect spreading bunches with good yield. Local name Mative. Cultivar. Seed.
481753. RPM 030. Mozambique. Collected April 1981. Field, Mupase, Napula Province. Plants spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481754. RPM 031. Mozambique. Collected April 1981. Field, 10km from Malema to Matuali, Nampula Province. Plants spreading bunch type with good root nodulation. Local name Mative. Cultivar. Seed.
481755. RPM 034. Mozambique. Collected April 1981. Store, Mecanhelas, Niassa Province. Local name Mative. Cultivar. Seed.
481756. RPM 035. Mozambique. Collected April 1981. Field, Natakine, Nampula. Plants spreading bunch type tending to be erect. Local name Mative. Cultivar. Seed.
481757. RPM 038. Mozambique. Collected April 1981. Field, Namahitu, Nampula Province. Plants spreading bunch type. Local name Mative. Cultivar. Seed.
481758. RPM 039. Mozambique. Collected April 1981. Store, Livia Via, Zambezia Province. Local name Mative. Cultivar. Seed.
481759. RPM 042. Mozambique. Collected April 1981. Field, Tavela, Zambezia Province. Plants spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481760. RPM 044. Mozambique. Collected April 1981. Field, Chaenda, Zambezia Province. Plants spreading bunch type

481732 TO 481814-continued

- with runners. Local name Amendoim. Cultivar. Seed.
481761. RPM 047. Mozambique. Collected April 1981. Field, Bive, Zambezia Province. Plants spreading bunch type with runners. Local name Amendoim. Cultivar. Seed.
481762. RPM 048. Mozambique. Collected April 1981. Field, Maecuia, Zambezia Province. Plants spreading bunch type with runners. Local name Amendoim. Cultivar. Seed.
481763. RPM 049. Mozambique. Collected April 1981. Store in Cellula to Mapira, Zambezia Province. Local name Amendoim. Cultivar. Seed.
481764. RPM 050. Mozambique. Collected April 1981. Store in Mutange, Zambezia Province. Local name Amendoim. Cultivar. Seed.
481765. RPM 051. Mozambique. Collected April 1981. Field, Ceracero de Mateira, Zambezia Province. Plants spreading bunch type. Local name Amendoim. Cultivar. Seed.
481766. RPM 052. Mozambique. Collected April 1981. Field, Ceracero de Mateira, Zambezia Province. Plants erect bunch type. Local name Amendoim. Cultivar. Seed.
481767. RPM 053. Mozambique. Collected April 1981. Field, Villa to Mucubela, Zambezia Province. Plants spreading bunch type with runners. Local name Amendoim. Cultivar. Seed.
481768. RPM 055. Mozambique. Collected April 1981. Field, Oualivia, Zambezia Province. Plants erect bunch type. Local name Amendoim. Cultivar. Seed.
481769. RPM 056. Mozambique. Collected April 1981. Field, Mucubela, Zambezia Province. Maturity possibly short. Local name Amendoim. Cultivar. Seed.
481770. RPM 059. Mozambique. Collected April 1981. Field, Mani, Zambezia Province. Plants erect bunch type, some high pod number. Local name Amendoim. Cultivar. Seed.
481771. RPM 061. Mozambique. Collected April 1981. Field, Mucheba (Mugeba), Zambezia Province. Plants spreading bunch type. Severe termite damage. Local name Native. Cultivar. Seed.
481772. RPM 068. Mozambique. Collected April 1981. Field, Chalapla, Zambezia Province. Plants spreading and erect bunch type with nodulation at the base of the branch and hypocotyl region. Local name Amendoim. Cultivar. Seed.
481773. RPM 069. Mozambique. Collected April 1981. Field,

481732 TO 481814-continued

- Chalapla, Zambezia Province. Local name Fejo gogo. Cultivar. Seed.
481774. RPM 070. Mozambique. Collected April 1981. Field, Mocuba-Alto Molocue, Zambezia Province. Plants spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481775. RPM 072. Mozambique. Collected April 1981. Store, Napuja, Zambezia Province. Maturity possibly short. Local name Amendoim. Cultivar. Seed.
481776. RPM 074. Mozambique. Collected April 1981. Field, Gile, Zambezia Province. Plants spreading bunch type with runners, under drought stress. Local name Amendium. Cultivar. Seed.
481777. RPM 078. Mozambique. Collected April 1981. Field, Cellula Nachuca, Zambezia Province. Good root nodulation. Local name Amendoim. Cultivar. Seed.
481778. RPM 079. Mozambique. Collected April 1981. Field, Naniope, Zambezia Province. Plants erect bunch type. Local name Amendoim. Cultivar. Seed.
481779. RPM 081. Mozambique. Collected April 1981. Field, Naniope, Zambezia Province. Plants erect bunch type with good root nodulation. Local name Marceias. Cultivar. Seed.
481780. RPM 086. Mozambique. Collected April 1981. Store, Naniope, Zambezia Province. Local name Mative. Cultivar. Seed.
481781. RPM 087. Mozambique. Collected April 1981. Field, Gile, Zambezia Province. Plants spreading bunch type with runners. Local name Mative. Cultivar. Seed.
481782. RPM 088. Mozambique. Collected April 1981. Field, Naheje, Zambezia Province. Plants spreading bunch type. Local name Mative. Cultivar. Seed.
481783. RPM 090. Mozambique. Collected April 1981. Store, Mahegua, Zambezia Province. Plants possibly erect bunch type. Local name Mative. Cultivar. Seed.
481784. RPM 092. Mozambique. Collected April 1981. Store, Nahavarra, Zambezia Province. Plants possibly erect bunch type. Local name Mative. Cultivar. Seed.
481785. RPM 093. Mozambique. Collected April 1981. Field, Nahavarra, Nampula Province. Plants with runners. Local name Mative. Cultivar. Seed.
481786. RPM 094. Mozambique. Collected April 1981. Field,



481732 TO 481814-continued

- Marelo, Zambezia Province. Plants erect bunch type. Local name Mative. Cultivar. Seed.
481787. RPM 095. Mozambique. Collected April 1981. Field, Cellula Magodone, Zambezia Province. Plants erect bunch type. Local name Mative. Cultivar. Seed.
481788. RPM 097. Mozambique. Collected April 1981. Field, Cellula Nusseia, Zambezia Province. Plants spreading bunch type with runners. Snail damage. Local name Mexoiera. Cultivar. Seed.
481789. RPM 098. Mozambique. Collected April 1981. Store, Cellula Nusseia, Zambezia Province. Plants erect bunch type. Local name Mative. Cultivar. Seed.
481790. RPM 102. Mozambique. Collected April 1981. Field, Mocurugne, Zambezia Province. Plants erect bunch type. Local name Mative. Cultivar. Seed.
481791. RPM 108. Mozambique. Collected April 1981. Field, Mualama, Zambezia Province. Plants erect bunch type with severe borer damage (Cleodendron sp., a semi-parasite). Local name Mative. Cultivar. Seed.
481792. RPM 110. Mozambique. Collected April 1981. Field, Cellula Gigiebe, Zambezia Province. Plants erect bunch type with low incidence of rust. Local name Mative. Cultivar. Seed.
481793. RPM 114. Mozambique. Collected April 1981. Field, Cellula Namaroue, Zambezia Province. Plants erect bunch type with many single seeded pods and low rust incidence. Local name Mative. Cultivar. Seed.
481794. RPM 117. Mozambique. Collected April 1981. Field, Majiga, Zambezia Province. Plants erect bunch type. Local name Mative. Cultivar. Seed.
481795. RPM 119. Mozambique. Collected April 1981. Field, Metelane, Zambezia Province. Plants erect bunch type. Local name Mative. Cultivar. Seed.
481796. RPM 122. Mozambique. Collected April 1981. Field, Mucubela, Zambezia Province. Plants erect bunch type. Local name Mative. Cultivar. Seed.
481797. RPM 126. Mozambique. Collected April 1981. Store, Cellula Mageue, Zambezia Province. Plants possibly erect bunch type. Local name Mative. Cultivar. Seed.
481798. RPM 128. Mozambique. Collected April 1981. Store, 9km from Nanegonio, Zambezia Province. Plants possibly erect

481732 TO 481814-continued

- bunch type. Local name Mative. Cultivar. Seed.
481799. RPM 132. Mozambique. Collected April 1981. Store, Paevounha, Nampula Province. Local name Mative. Cultivar. Seed.
481800. RPM 134. Mozambique. Collected April 1981. Field, Luluti, Nampula Province. Plants spreading bunch type. Local name Mative. Cultivar. Seed.
481801. RPM 135. Mozambique. Collected April 1981. Store, Mulessari, Nampula Province. Local name Mative. Cultivar. Seed.
481802. RPM 142. Mozambique. Collected April 1981. Store, Mulessari, Nampula Province. Plants possibly erect bunch type with short maturity. Local name Mative. Cultivar. Seed.
481803. RPM 144. Mozambique. Collected April 1981. Store, 2km from Nametil-Muatua, Nampula Province. Local name Mative. Cultivar. Seed.
481804. RPM 145. Mozambique. Collected April 1981. Store, 15km from Nametil-Muatua, Nampula Province. Local name Mative. Cultivar. Seed.
481805. RPM 147. Mozambique. Collected April 1981. Field, Namitoria, Nampula Province. Cultivar. Seed.
481806. RPM 150. Mozambique. Collected April 1981. Field, 15km from Boile-Moma, Nampula Province. Plants spreading bunch type. Local name Mative. Cultivar. Seed.
481807. RPM 153. Mozambique. Collected April 1981. Store, Zona Chorma, Nampula Province. Local name Mative. Cultivar. Seed.
481808. RPM 157. Mozambique. Collected April 1981. Field, Marcia, Nampula Province. Plants spreading bunch type. Seeds red and tan. Local name Mative. Cultivar. Seed.
481809. RPM 158. Mozambique. Collected April 1981. Threshing floor, Marcia, Nampula Province. Termite damage. Local name Mative. Cultivar. Seed.
481810. RPM 163. Mozambique. Collected April 1981. Field, Nicarro, Nampula Province. Plants spreading bunch type. Local name Mative. Cultivar. Seed.
481811. RPM 167. Mozambique. Collected April 1981. Institute, Namialo, Nampula Province. Plants local type. Local name Sengal. Cultivar. Seed.

481732 TO 481814-continued

481812. RPM 168. Mozambique. Collected April 1981. Institute, Namialo, Nampula Province. Local mixture. Cultivar. Seed.
481813. RPM 169. Mozambique. Collected April 1981. Field, Nacaroa, Nampula Province. Plants spreading bunch type. Local name Mative. Cultivar. Seed.
481814. RPM 174. Mozambique. Collected April 1981. Field, Nacivara, Cabo Delgado Province. Plants spreading bunch. Bold Seed. Local name Mativi. Cultivar. Seed.

481815 TO 481827. *Pennisetum americanum* (L.) Leeke (Poaceae) Pearl millet.

From Mozambique. Collected by Perret, P.M.; Malithano, A.D.; Rao, V.R.; IBPGR; National Inst. of Res. in Agronomy; International Crops Res. Inst. for the Semi-Arid Tropics; Rome, Italy; Maputo, Mozambique; Patancheru, India. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received September 1981.

481815. RPM 037. Mozambique. Collected April 1981. Field, Namahitu, Nampula Province. Local name Muxuvera. Cultivar. Seed.
481816. RPM 096. Mozambique. Collected April 1981. Field, Cellula Magodone, Zambezia Province. Local name Mexoiera. Cultivar. Seed.
481817. RPM 100. Mozambique. Collected April 1981. Field, Cellula Nusseia, Zambezia Province. Local name Mexioera. Cultivar. Seed.
481818. RPM 103. Mozambique. Collected April 1981. Field, Carroea, Zambezia Province. Local name Mexioera. Cultivar. Seed.
481819. RPM 111. Mozambique. Collected April 1981. Field, Cellula Chango, Zambezia Province. Local name Notxi. Cultivar. Seed.
481820. RPM 125. Mozambique. Collected April 1981. Field, Mucubela, Zambezia Province. Local name Mexioera. Cultivar. Seed.
481821. RPM 131. Mozambique. Collected April 1981. Field, Paevounha, Nampula Province. Spikes bristled and bristleless. Local name Mexiera. Cultivar. Seed.
481822. RPM 137. Mozambique. Collected April 1981. Field,

481815 TO 481827-continued

- Muessari, Nampula Province. Spikes bristled and  
bristleless. Local name Mexiera. Cultivar. Seed.
481823. RPM 154. Mozambique. Collected April 1981. Field, Zone  
Chorma, Nampula Province. Local name Mexioera. Cultivar.  
Seed.
481824. RPM 161. Mozambique. Collected April 1981. Field,  
Nicarro, Nampula Province. Local name Nanti. Cultivar.  
Seed.
481825. RPM 170. Mozambique. Collected April 1981. Field,  
Circula Iopade, Nampula Province. Local name Nauti.  
Cultivar. Seed.
481826. RPM 171. Mozambique. Collected April 1981. Field,  
Circula Iopade, Nampula Province. Local name Mehele.  
Cultivar. Seed.
481827. RPM 173. Mozambique. Collected April 1981. Field,  
Nacivara, Cabo Delgado Province. Local name Nauti.  
Cultivar. Seed.

481828 TO 481850. *Sorghum bicolor* (L.) Moench (Poaceae) Grain sorghum.

From Mozambique. Collected by Perret, P.M.; Malithano, A.D.; Rao,  
V.R.; IBPGR; National Inst. of Res. in Agronomy;  
International Crops Res. Inst. for the Semi-Arid Tropics;  
Rome, Italy; Maputo, Mozambique; Patancheru, India.  
Received through International Board for Plant Genetic  
Resource (IBPGR), Rome, Italy.  
Received September 1981.

481828. RPM 060. Mozambique. Collected April 1981. Field,  
Muchebe (Mugeba), Zambezia Province. Guinea race. Heads  
not very mature. Local name Mele. Cultivar. Seed.
481829. RPM 062. Mozambique. Collected April 1981. Field,  
Muchebe (Mugeba), Zambezia Province. Guinea race. Local  
name Mele. Cultivar. Seed.
481830. RPM 064. Mozambique. Collected April 1981. Field,  
Namugo, Zambezia Province. Guinea race. Limited mature  
seed. Local name Maypira. Cultivar. Seed.
481831. RPM 066. Mozambique. Collected April 1981. Field,  
Mulevane, Zambezia Province. Guinea race. Local name  
Mapeyare. Cultivar. Seed.
481832. RPM 067. Mozambique. Collected April 1981. Field,  
Chalapala, Zambezia Province. Guinea race. Local name  
Mapeyare. Cultivar. Seed.

481828 TO 481850-continued

481833. RPM 084. Mozambique. Collected April 1981. Field, Naniupe, Zambezia Province. Guinea race. Local name Mele. Cultivar. Seed.
481834. RPM 101. Mozambique. Collected April 1981. Store, Cellula Nusseia, Zambezia Province. Guinea race. Local name Mele. Cultivar. Seed.
481835. RPM 104. Mozambique. Collected April 1981. Field, Carroea, Zambezia Province. Local name Mele. Cultivar. Seed.
481836. RPM 112. Mozambique. Collected April 1981. Field, Cellula, Chango, Zambezia Province. Seed from single tall plant. Local name Mele. Cultivar. Seed.
481837. RPM 124. Mozambique. Collected April 1981. Store, Mucubela, Zambezia Province. Seed from single plant. Local name Mele. Cultivar. Seed.
481838. RPM 129. Mozambique. Collected April 1981. Field, 5km Mulevela-Gile, Zambezia Province. Guinea race. Local name Mele. Cultivar. Seed.
481839. RPM 140. Mozambique. Collected April 1981. Store, Mulessari, Nampula Province. Local name Mele. Cultivar. Seed.
481840. RPM 159. Mozambique. Collected April 1981. Field, Marcia, Nampula Province. Guinea race. Peduncles straight. Local name Namusi. Cultivar. Seed.
481841. RPM 160. Mozambique. Collected April 1981. Field, Marcia, Nampula Province. Guinea race. Peduncles bent. Local name Marrota. Cultivar. Seed.
481842. RPM 175. Mozambique. Collected April 1981. Institute, Namapa, Nampula Province. Local name Nicuancnatua. Cultivar. Seed.
481843. RPM 176. Mozambique. Collected April 1981. Research institute, Chipenbe, Cabo Delgado Province. Local name Coulho. Cultivar. Seed.
481844. RPM 177. Mozambique. Collected April 1981. Research institute, Chipenbe, Cabo Delgado Province. Cultivar. Seed.
481845. RPM 178. Mozambique. Collected April 1981. Research institute, Chipenbe, Cabo Delgado Province. Local name Amarera. Cultivar. Seed.

481828 TO 481850-continued

481846. RPM 179. Mozambique. Collected April 1981. Research institute, Chipenbe, Cabo Delgado Province. Local line. Cultivar. Seed.
481847. RPM 180. Mozambique. Collected April 1981. Research institute, Chipenbe, Cabo Delgado Province. Local name Beta. Cultivar. Seed.
481848. RPM 181. Mozambique. Collected April 1981. Research institute, Chipenbe, Cabo Delgado Province. Local name Preta. Cultivar. Seed.
481849. RPM 182. Mozambique. Collected April 1981. Research institute, Ripue, Nampula Province. Local name Muine. Cultivar. Seed.
481850. RPM 184. Mozambique. Collected April 1981. Research institute, Ripue, Nampula Province. Local name Mammoth. Cultivar. Seed.

481851. *Lupinus albus* L. (Fabaceae) White lupine.

From Israel. Donated by Plant Introduction Department, The Volcani Center; Bet-Dagan 50250.  
Received September 1983.

18A. Israel. Cultivated. Seed.

481852. *Triticum aestivum* L. (Poaceae) Common wheat.

From United States. Donated by Lafever, H.N.; Department of Agronomy, Ohio Agricultural Research and Development Center; Wooster, Ohio.  
Received October 1983.

2370B2-10-2. 'Adena'. United States. S227/Logan-F2/  
/Blueboy/3/Logan. Soft red type. Extremely short. Milling quality excellent. Loose smut not observed under natural conditions. Resistant to races A & C of Hessian fly. Also referred to as OH 188. Winter Annual. Cultivar. Seed.

481853. *Nicotiana rustica* L. (Solanaceae).

From Turkey. Donated by Tobacco Laboratory, USDA-ARS; Beltsville, Maryland, USA.  
Received December 1983.

T.I. 1654. Hasankeyf. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.

481854 TO 481868. *Nicotiana tabacum* L. (Solanaceae) Tobacco.

From Turkey. Donated by Tobacco Laboratory, USDA-ARS; Beltsville, Maryland, USA.

Received December 1983.

- 481854. T.I. 1641. Bafra. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481855. T.I. 1642. Ege. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481856. T.I. 1643. Yayladag. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481857. T.I. 1644. Canik. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481858. T.I. 1645. Ozbas. Turkey. Izmir. S. Sekin, Ege University. Resistant to blue mold. Cultivated. Seed.
- 481859. T.I. 1646. Bitlis. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481860. T.I. 1647. Samsun Maden. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481861. T.I. 1648. Maras. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481862. T.I. 1649. Trabzon. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481863. T.I. 1650. Bursa. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481864. T.I. 1651. Citir. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481865. T.I. 1652. Malatya. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481866. T.I. 1653. Burley. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481867. T.I. 1655. Karabaglar. Turkey. Izmir. S. Sekin, Ege University. Cultivated. Seed.
- 481868. T.I. 1656. Incekara. Turkey. Izmir. S. Sekin, Ege University. Resistant to blue mold. Cultivated. Seed.

481869 TO 481870. *Amaranthus* sp. (Amaranthaceae).

From Sudan. Collected by Croston, R.P.; El Ahmadi, A.E.; IBPGR;

481869 TO 481870-continued

Agricultural Research Corporation; Rome, Italy; Wad Medani, Sudan. Received through International Board for Plant Genetic Resources (IBPGR), Rome Italy. Received May 1982.

481869. 120. Sudan. Latitude: 12 deg 51  $\text{N}$ ; Longitude: 024 deg 23  $\text{E}$ . Collected November 06, 1981. Irrigated wheat field, Gur Lambang, Jebel Marra, Darfur Province. 2000m. Wild/Weedy. Seed.

481870. 163. Sudan. Latitude: 12 deg 57  $\text{N}$ ; Longitude: 024 deg 10  $\text{E}$ . Collected November 11, 1981. Irrigated sorghum field, Beldong, Jebel, Darfur Province. 1300m. Wild/Weedy. Seed.

481871. *Citrullus lanatus* (Thunb.) Matsum. & Nakai (Cucurbitaceae) Watermelon.

From Sudan. Collected by Croston, R.P.; El Ahmadi, A.B.; IBPGR; Agricultural Research Corporation; Rome, Italy; Wad Medani, Sudan. Received through International Board for Plant Genetic Resources (IBPGR), Rome Italy. Received May 1982.

191. Sudan. Latitude: 13 deg 10  $\text{N}$ ; Longitude: 022 deg 49  $\text{E}$ . Collected November 15, 1981. Non-irrigated sorghum field, Wadi Noori, 26km S of Jebel Marra, Darfur Prov. 800m. Used for oil and food-roasted seed and fresh fruit. Cultivated. Seed.

481872 TO 481873. *Oryza* sp. (Poaceae).

From Sudan. Collected by Croston, R.P.; El Ahmadi, A.E.; IBPGR; Agricultural Research Corporation; Rome, Italy; Wad Medani, Sudan. Received through International Board for Plant Genetic Resources (IBPGR), Rome Italy. Received May 1982.

481872. 205. Sudan. Latitude: 12 deg 30  $\text{N}$ ; Longitude: 022 deg 43  $\text{E}$ . Collected November 16, 1981. Farm store, Um Kadada, S Darfur Province. 700m. Local original source. Glumes white. Seed white. Cultivated. Seed.

481873. 206. Sudan. Latitude: 12 deg 30  $\text{N}$ ; Longitude: 022 deg 34  $\text{E}$ . Collected November 16, 1981. Farm store, Um Kadada, S Darfur Province. 700m. Local original source. Seeds red with white husk. Cultivated. Seed.

481874 TO 481879. *Sesamum indicum* L. (Pedaliaceae) Sesame.

From Sudan. Collected by Croston, R.P.; El Ahmadi, A.B.; IBPGR;



**481874 TO 481879-continued**

Agricultural Research Corporation; Rome, Italy; Wad Medani, Sudan. Received through International Board for Plant Genetic Resources (IBPGR), Rome Italy. Received May 1982.

481874. 146. Sudan. Latitude: 12 deg 33 m N; Longitude: 024 deg 15 m E. Collected November 09, 1981. Field, 2km W of Dibis, Jebel Marra, Darfur Province. 1000m. Sown August, harvested November. Cultivated. Seed.
481875. 184. Sudan. Latitude: 13 deg 20 s N; Longitude: 022 deg 53 m E. Collected November 15, 1981. Farm store, 2km E of Kereinik, Jebel Marra, Darfur Province. 800m. Local original source. Seeds dark. Cultivated. Seed.
481876. 187. Sudan. Latitude: 13 deg 10 m N; Longitude: 022 deg 49 m E. Collected November 15, 1981. Farm store, Noori, Jebel Marra, Darfur Province. 900m. Local original source. Cultivated. Seed.
481877. 201. Sudan. Latitude: 12 deg 29 m N; Longitude: 022 deg 31 m E. Collected November 16, 1981. Market, Gcororo, S Darfur Province. 700m. Cultivated. Seed.
481878. 202. Sudan. Latitude: 12 deg 29 m N; Longitude: 022 deg 31 m E. Collected November 16, 1981. Market, Gororo, S Darfur Province. 700m. Cultivated. Seed.
481879. 203. Sudan. Latitude: 12 deg 29 m N; Longitude: 022 deg 31 m E. Collected November 16, 1981. Market, Gororo, S Darfur Province. 700m. Cultivated. Seed.

**481880 TO 481914. Sorghum bicolor (L.) Moench (Poaceae) Sorghum.**

From Sudan. Collected by Croston, R.P.; El Ahmadi, A.B.; IBPGR; Agricultural Research Corporation; Rome, Italy; Wad Medani, Sudan. Received through International Board for Plant Genetic Resources (IBPGR), Rome Italy. Received May 1982.

481880. 95. Sudan. Latitude: 12 deg 36 m N; Longitude: 024 deg 11 m E. Collected October 31, 1981. Tursung, Jebel Marra, Darfur Province. 850m. Found occassionally in millet field. Weedy. Seed.
481881. 97. Sudan. Latitude: 12 deg 58 m N; Longitude: 024 deg 04 m E. Collected October 31, 1981. Government rest house, Nyerteti, Jebel Marra, Darfur Province. 1150m. Original local source. Plants 1-1.5m tall. Seeds red and shades of white. Sown August and harvested November. Local name Fasirkh. Cultivated. Seed.

481880 TO 481914-continued

481882. 101. Sudan. Latitude: 13 deg 08 m N; Longitude: 027 deg 59 m E. Collected November 01, 1981. Fundu, Jebel Marra, Darfur Province. 1000m. Original local source. Plants to 3m tall, grown with millet. Seeds mainly white. Local name Durra. Cultivated. Seed.
481883. 102. Sudan. Latitude: 13 deg 08 m N; Longitude: 027 deg 59 m E. Collected November 01, 1981. Fundu, Jebel Marra, Darfur Province. 1000m. Original local source. Plants brown with millet. Sown August harvested November. Six seed colors from white to black. Black-seeded type weedy. Local name Durra. Cultivated. Seed.
481884. 108. Sudan. Latitude: 13 deg 05 m N; Longitude: 024 deg 17 m E. Collected November 01, 1981. Millet field, 2km W from Jebel Marra, Darfur Province. 1900m. Original local source. Cultivated. Seed.
481885. 113. Sudan. Latitude: 13 deg 04 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. Wheat field, Dursa, Jebel Marra, Darfur Province. 1950m. Sown August, harvested November. Cultivated. Seed.
481886. 116. Sudan. Latitude: 13 deg 04 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. Dursa, Jebel Marra, Darfur Province. 1950m. Local original source. Sown August, harvested November. Millet and wheat grown near or in rotation. Cultivated. Seed.
481887. 118. Sudan. Latitude: 13 deg 09 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. Millet field, below Jebel Sakuna, near Golo, Jebel Marra, Darfur Province. 1700m. Local original source. Sown August, harvested November. Cultivated. Seed.
481888. 136. Sudan. Latitude: 12 deg 48 m N; Longitude: 024 deg 24 m E. Collected November 08, 1981. Kawer, Jebel Marra, Darfur Province. 1500m. Sown August, harvested November. Heads white. Cultivated. Seed.
481889. 139. Sudan. Latitude: 12 deg 46 m N; Longitude: 024 deg 24 m E. Collected November 08, 1981. Orgo, Jebel Marra, Darfur Province. 1000m. Local original source. Sown August, harvested November. Cultivated. Seed.
481890. 141. Sudan. Latitude: 12 deg 46 m N; Longitude: 024 deg 24 m E. Collected November 08, 1981. Orgo, Jebel Marra, Darfur Province. 1000m. Local original source. Sown August, harvested November. Cultivated. Seed.
481891. 150. Sudan. Latitude: 12 deg 44 m N; Longitude: 024 deg 16 m E. Collected November 10, 1981. Kalo Kittins, Jebel

481880 TO 481914-continued

- Marra, Darfur Province. 1100m. Local original source. Sown August, harvested November. Millet grown in close proximity. Cultivated. Seed.
481892. 156. Sudan. Latitude: 12 deg 40 m N; Longitude: 024 deg 14 m E. Collected November 10, 1981. Wastoni, Jebel Marra, Darfur Province. 1000m. Local original source. Sown August, harvested November. Cultivated. Seed.
481893. 159. Sudan. Latitude: 12 deg 51 m N; Longitude: 024 deg 08 m E. Collected November 10, 1981. East 1 km from Tur, Jebel Marra, Darfur Province. 1000m. Cultivated and weedy types. Sown August, harvested November. Cultivated. Seed.
481894. 160. Sudan. Latitude: 12 deg 56 m N; Longitude: 024 deg 03 m E. Collected November 10, 1981. Murtagyello, Jebel Marra, Darfur Province. 1000m. Local original source. Sown August, harvested mid-November. Cultivated. Seed.
481895. 162. Sudan. Latitude: 12 deg 57 m N; Longitude: 024 deg 10 m E. Collected November 11, 1981. Beldong, Jebel Marra, Darfur Province. 1300m. Local original source. Plants highly diverse with different heights, head shapes, and seed colors. Cultivated. Seed.
481896. 164. Sudan. Latitude: 12 deg 57 m N; Longitude: 024 deg 10 m E. Collected November 11, 1981. East 1.5km from Beldong, Jebel Marra, Darfur Province. 1300m. Local original source. Sown August, harvested November. Enclosed seeds with various colors. Cultivated. Seed.
481897. 166. Sudan. Latitude: 12 deg 57 m N; Longitude: 024 deg 10 m E. Collected November 11, 1981. East, 1.5km from Beldong, Jebel Marra, Darfur Province. 1300m. Local original source. Sown August, harvested November. Farmer selectively harvested, stacked for drying. Cultivated. Seed.
481898. 169. Sudan. Latitude: 12 deg 57 m N; Longitude: 024 deg 09 m E. Collected November 11, 1981. West, 0.5km from Beldong, Jebel Marra, Darfur Province. 1200m. Local original source. Sown August, harvested November. Cultivated. Seed.
481899. 172. Sudan. Latitude: 13 deg 26 m N; Longitude: 023 deg 18 m E. Collected November 13, 1981. Saraf Umra, Jebel Marra, Darfur Province. 800m. Local original source. Sown August, harvested mid-November. Cultivated. Seed.
481900. 174. Sudan. Latitude: 13 deg 25 m N; Longitude: 023 deg 03 m E. Collected November 13, 1981. Farm store, Zalata Baruut, Jebel Marra, Darfur Province. 750m. Local original source. Sown August, harvested November.

481880 TO 481914-continued

Cultivated. Seed.

481901. 175. Sudan. Latitude: 13 deg 27 m N; Longitude: 022 deg 43 m E. Collected November 13, 1981. West, 44km from Saraf Umra, Jebel Marra, Darfur Province. 800m. Local original source. Sown August, harvested November. Cultivated. Seed.
481902. 177. Sudan. Latitude: 13 deg 27 m N; Longitude: 022 deg 30 m E. Collected November 13, 1981. East, 8km from Genena, Jebel Marra, Darfur Province. 750m. Plants 2m tall, some goosenecked red types. Sown August, harvested November. Cultivated. Seed.
481903. 180. Sudan. Latitude: 13 deg 21 m N; Longitude: 022 deg 26 m E. Collected November 14, 1981. Tabarik, Jebel Marra, Darfur Province. 800m. Local original source. Plants 1.5m tall. Millet grown in close proximity. Sown August, harvested November. Cultivated. Seed.
481904. 183. Sudan. Latitude: 13 deg 20 m N; Longitude: 022 deg 53 m E. Collected November 14, 1981. Farm store, Kereinick, Jebel Marra, Darfur Province. 800m. Local original source. Sown August, harvested November. Cultivated. Seed.
481905. 190. Sudan. Latitude: 13 deg 10 m N; Longitude: 022 deg 49 m E. Collected November 15, 1981. South, 2km from Noori, Jebel Marra, Darfur Province. 800m. Local original source. Plants 3-3.5m tall. Sown August, harvested mid November. Cultivated. Seed.
481906. 190-1. Sudan. Latitude: 13 deg 10 m N; Longitude: 022 deg 49 m E. Collected November 15, 1981. South, 26km from Noori, Jebel Marra, Darfur Province. 800m. Local original source. Plants 2-2.5m tall, sweet stem type. Sown August, harvested mid-November. Cultivated. Seed.
481907. 192. Sudan. Latitude: 12 deg 57 m N; Longitude: 022 deg 50 m E. Collected November 15, 1981. Mournei, Jebel Marra, Darfur Province. 900m. Local original source. Plants 3-3.5m tall, some with 3 to 7 heads. White and red seeded types and weedy, white, red, and black seeded free threshing types. Sown in June, harvested end of November. Cultivated. Seed.
481908. 193. Sudan. Latitude: 12 deg 57 m N; Longitude: 022 deg 52 m E. Collected November 15, 1981. East, 1 km of Mournei, Jebel Marra, Darfur Province. 900m. Local original source. Maturity 150 days, sown June, harvested November. Twin seeded, white type. Cultivated. Seed.
481909. 195. Sudan. Latitude: 12 deg 47 m N; Longitude: 022 deg

481880 TO 481914-continued

- 44 m E. Collected November 15, 1981. Gorkorta, S Darfur Province. 700m. Plants native. Sown June, harvested mid-November. Red and white types 4m tall, weedy types white and black seeded. Cultivated. Seed.
481910. 196. Sudan. Latitude: 12 deg 37 m N; Longitude: 022 deg 43 m E. Collected November 15, 1981. Wadi Sia, S Darfur Province. 700m. Plants native, 2-5m tall. Weedy and cultivated types, mostly white seeded some dark red seeded types. Cultivated. Seed.
481911. 200. Sudan. Latitude: 12 deg 34 m N; Longitude: 022 deg 38 m E. Collected November 15, 1981. Handunaburro near Wadi Azum, S. Darfur Province. 900m. Plants native, 2-3m tall. Cultivated. Seed.
481912. 207. Sudan. Latitude: 12 deg 30 m N; Longitude: 022 deg 39 m E. Collected November 16, 1981. West, 3km of Wadi Azum, S Darfur Province. 700m. Plants 1.5-3m tall, cultivated and weedy types. Cultivated. Seed.
481913. 210. Sudan. Latitude: 12 deg 36 m N; Longitude: 022 deg 45 m E. Collected November 17, 1981. Farm store Fouri, N Darfur Province. 700m. Local original source. Maturity 180 days. Sown May, harvested November. Cultivated. Seed.
481914. 212. Sudan. Latitude: 12 deg 51 m N; Longitude: 023 deg 07 m E. Collected November 17, 1981. Sullu, on Wadi Azum, N, Darfur Province. 700m. Local original source. Sown June, harvested November. Cultivated. Seed.

481915 TO 481931. *Triticum aestivum* L. (Poaceae) Common wheat.

From Sudan. Collected by Croston, R.P.; El Ahmadi, A.B.; IBPGR; Agricultural Research Corporation; Rome, Italy; Wad Medani, Sudan. Received through International Board for Plant Genetic Resources (IBPGR), Rome Italy. Received May 1982.

481915. 105. Sudan. Latitude: 13 deg 05 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. West, 3km from Kelling, Jebel Marra, Darfur Province. 1900m. Local original source. Sown in August, harvested in November. Millet grown nearby. Heads awned. Cultivated. Seed.
481916. 109. Sudan. Latitude: 13 deg 05 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. West, 2km from Kelling, Jebel Marra, Darfur Province. 1900m. Local original source. Sown August, harvested November. Heads awned and awnless with white and brown glumes. Brown type less than 1 percent. Cultivated. Seed.

481915 TO 481931-continued

481917. 110. Sudan. Latitude: 13 deg 05 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. West, 2km from Kelling, Jebel Marra, Darfur Province. 1900m. Local original source. Sown August, harvested November. Brown-glumed type less than 1 percent. Cultivated. Seed.
481918. 111. Sudan. Latitude: 13 deg 05 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. West, 2km from Kelling, Jebel Marra, Darfur Province. 1900m. Local original source. Sown August, harvested November. Millet grown in association or nearby. Brown-glumed type present in very low percentage. Cultivated. Seed.
481919. 112. Sudan. Latitude: 13 deg 04 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. Dursa, Jebel Marra, Darfur Province. 1950m. Local original source. Sown August, harvested November. Spikes mostly awned with few brown-glumed type. Cultivated. Seed.
481920. 114. Sudan. Latitude: 13 deg 04 m N; Longitude: 024 deg 17 m E. Collected November 02, 1981. Dursa, Jebel Marra, Darfur Province. 2000m. Local original source. Sown August, harvested November. Millet and sorghum grown near or in rotation. Crop being replaced by potatoes. Cultivated. Seed.
481921. 119. Sudan. Latitude: 12 deg 51 m N; Longitude: 024 deg 23 m E. Collected November 06, 1981. Gur Lambang, Jebel Marra, Darfur Province. 2000m. Local original source. Harvested in November. Cultivated. Seed.
481922. 122. Sudan. Latitude: 12 deg 51 m N; Longitude: 024 deg 23 m E. Collected November 06, 1981. South, 1 km from Gur Lambang, Jebel Marra, Darfur Province. 1950m. Local original source. Sown August, harvested November. Cultivated. Seed.
481923. 123. Sudan. Latitude: 12 deg 51 m N; Longitude: 024 deg 23 m E. Collected November 06, 1981. West, 1 km from junction to Gur Lambang, Jebel Marra, Darfur Province. 2100m. Local original source. Sown August, harvested November. Cultivated. Seed.
481924. 124. Sudan. Latitude: 12 deg 52 m N; Longitude: 024 deg 21 m E. Collected November 06, 1981. West, 3km from Gur Lambang junction, Jebel Marra, Darfur Province. 2150m. Local original source. Sown August, harvested November. Plants susceptible to stem rust. Cultivated. Seed.
481925. 125. Sudan. Latitude: 12 deg 54 m N; Longitude: 024 deg 19 m E. Collected November 06, 1981. Gulobei, Jebel Marra, Darfur Province. 2300m. Local original source.

481915 TO 481931-continued

Sown August, harvested November. Cultivated. Seed.

481926. 126. Sudan. Latitude: 12 deg 54 n N; Longitude: 024 deg 19 n E. Collected November 06, 1981. Seven km from Gur Lambeng junction, Jebel Marra, Darfur Province. 2350m. Sown in August, harvested end of November. Maturity somewhat variable. Heads mainly awned, some awnless. Cultivated. Seed.
481927. 127. Sudan. Latitude: 12 deg 55 n N; Longitude: 024 deg 18 n E. Collected November 06, 1981. South, 1 km from Toron Tonga, Jebel Marra, Darfur Province. 2300m. Local original source. Cultivated. Seed.
481928. 129. Sudan. Latitude: 12 deg 58 n N; Longitude: 024 deg 19 n E. Collected November 06, 1981. Wadi Kuringa, Jebel Marra, Darfur Province. 2300m. Local original source. Sown August, harvested late November. Plants severely infected with brown rust. Cultivated. Seed.
481929. 130. Sudan. Latitude: 12 deg 59 n N; Longitude: 024 deg 19 n E. Collected November 06, 1981. North, 1 km from Logi, Jebel Marra, Darfur Province. 2350m. Local original source. Sown August, harvested mid-November. Spikes awned, some brown. Cultivated. Seed.
481930. 131. Sudan. Latitude: 12 deg 55 n N; Longitude: 024 deg 18 n E. Collected November 07, 1981. Tora Tonga, western side of village, Jebel Marra, Darfur Province. 2300m. Local original source. Sown August, harvested November. Cultivated. Seed.
481931. 134. Sudan. Latitude: 12 deg 55 n N; Longitude: 024 deg 18 n E. Collected November 08, 1981. Tora Tonga, southern side of village, Jebel Marra, Darfur Province. 2300m. Local original source. Sown August, harvested November. Cultivated. Seed.

481932 TO 481939. *Sorghum bicolor* (L.) Moench (Poaceae) Sorghum.

From Sudan. Donated by Harvey, J.; Jebel Marra Rural Development Project; Khartoum, Sudan. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received August 1983.

481932. H 001. Sudan. Latitude: 12 deg 20 n N; Longitude: 023 deg 08 n E. Collected December 07, 1981. Field, Paya, S Darfur Province. 950m. Maturity 120 days, sown late June to late July, harvested October to late November. Cultivated. Seed.
481933. H 002. Sudan. Latitude: 12 deg 20 n N; Longitude: 023

481932 TO 481939-continued

- deg 17  $\text{m}$  E. Collected December 07, 1981. Field, Segai, S. Darfur Province. 950m. Maturity 160 days, sown May-June, harvested November-December. Cultivated. Seed.
481934. H 005. Sudan. Latitude: 12 deg 09  $\text{m}$  N; Longitude: 023 deg 26  $\text{m}$  E. Collected December 07, 1981. Field, Gaba, S Darfur Province. 1050m. Sown July, harvested November. Cultivated. Seed.
481935. H 007. Sudan. Latitude: 12 deg 17  $\text{m}$  N; Longitude: 022 deg 48  $\text{m}$  E. Collected December 08, 1981. Field, Kurnalu, S Darfur Province. 790m. Maturity 150 days, sown June-July, harvested November-December. Cultivated. Seed.
481936. H 008. Sudan. Latitude: 12 deg 07  $\text{m}$  N; Longitude: 022 deg 38  $\text{m}$  E. Collected December 09, 1981. Market, 5km E of Forodurunga, S. Darfur Province. 600m. Maturity about 90 days. Cultivated. Seed.
481937. H 009. Sudan. Latitude: 11 deg 54  $\text{m}$  N; Longitude: 023 deg 07  $\text{m}$  E. Collected December 10, 1981. Market, Bindis, S Darfur Province. 650m. Maturity 120-150 days. Cultivated. Seed.
481938. H 011. Sudan. Latitude: 11 deg 41  $\text{m}$  N; Longitude: 023 deg 07  $\text{m}$  E. Collected December 10, 1981. Field, Kerij, S Darfur Province. 650m. Maturity 180 days, sown May, harvested November. Cultivated. Seed.
481939. H 015. Sudan. Latitude: 11 deg 33  $\text{m}$  N; Longitude: 023 deg 07  $\text{m}$  E. Collected December 11, 1981. Market, Kakar, S Darfur Province. 600m. Maturity more than 150 days. Cultivated. Seed.

481940 TO 481946. *Leucaena leucocephala* (Lam.) de Wit (Fabaceae)  
Leadtree.

From Japan. Donated by National Grassland Research Institute,  
Ministry of Agriculture, Forestry & Fisheries;  
Nishinasuno, Tochigi.  
Received November 1983.

481940. Japan. Collected July 13, 1981. Hateruma Island. Wild. Seed.
481941. Japan. Collected October 28, 1981. Ikema Island. Wild. Seed.
481942. Japan. Collected February 01, 1980. Ishigaki Island. Wild. Seed.
481943. Japan. Collected July 1983. Miyako Island. Wild. Seed.



481940 TO 481946-continued

481944. Japan. Okinawa Island. Wild. Seed.
481945. Japan. Collected October 28, 1981. Tarama Island. Wild. Seed.
481946. Japan. Collected July 15, 1981. Yonaguni Island. Wild. Seed.

481947 TO 481972. *Amaranthus caudatus* L. (Amaranthaceae).

From United States. Collected by Feine-Dudley, L.; Rodale Research Center; Kutztown, Pennsylvania. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Code numbers refer to collector's field designations.  
Received October 1982.

481947. LFD-P 153. Peru. Rodale Research Center. RRC 378. Collected May 24, 1982. Huattacalla, Paruro, Cusco. 3000m. Co-collector Pena. Bulk collection. Seeds black and white. Planted in September/October in association with corn, ava, arbeja, tarwi (*lupinus*). Harvested April/May. Consumed as milled seed. Used as medicine for kidneys and livers. Local name Kiwicha. Cultivated. Seed.
481948. LFD-AAC 162. Peru. Rodale Research Center. RRC 887. Collected May 27, 1982. Simpi, Acomayo, Cusco. 3000m. Co-collector A. Alvarez C. Seeds black. Seeds used toasted for breakfast and as lung medicine. Local name Kiwillo. Cultivated. Seed.
481949. LFD-AAC 163. Peru. Rodale Research Center. RRC 888. Collected May 27, 1982. Llanza, Acomayo, Cusco. 3200m. Co-collector A. Alvarez C. Collection of 2 red plants. Seeds black. Used as medicine. Local name Kiwillo. Wild. Seed.
481950. LFD-AAC 165. Peru. Rodale Research Center. RRC 890. Collected June 01, 1982. Huaraz, Huaraz, Ancash. 3000m. Co-collector A. Alvarez C. Bulk collection. Seeds white. Used to make candy called turrone (balls of popped seed and sugar). Leaves eaten when small. Local name Achis. Cultivated. Seed.
481951. LFD-AAC 167. Peru. Rodale Research Center. RRC 892. Collected June 02, 1982. Picop, Huaraz, Ancash. 3080m. Co-collector A. Alvarez C. Bulk collection. Plants light green. Flowers in panicles. Associated with corn. Used toasted for breakfast. Local name Achis. Cultivated. Seed.
481952. LFD-AAC 169. Peru. Rodale Research Center. RRC 894. Collected June 02, 1982. Simphi, Huaraz, Ancash. 2880m.

481947 TO 481972-continued

- Co-collector A. Alvarez C. Bulk collection. Seeds tan/white, brown. Associated with corn. Used toasted for masca (flour and sugar), and for candy turrón. Local name Achis. Cultivated. Seed.
481953. LFD-AAC 175. Peru. Rodale Research Center. RRC 900. Collected June 02, 1982. Acopampa, Carhuaz, Ancash. 2780m. Co-collector A. Alvarez C. Bulk collection. Planted in October. Harvested in May. Grown in association with corn. Seeds white. Used to make candy (toron) and toasted for breakfast. Leaves eaten when young. Local name Achis. Cultivated. Seed.
481954. LFD-AAC 176. Peru. Rodale Research Center. RRC 901. Collected June 02, 1982. Acopampa, Carhuaz, Ancash. 2770m. Co-collector A. Alvarez C. Bulk collection. Seeds white. Eaten as masamora (flour) and torones (candy). Local name Achis. Cultivated. Seed.
481955. LFD-AAC 177. Peru. Rodale Research Center. RRC 902. Collected June 02, 1982. Acopampa, Carhuaz, Ancash. 2770m. Co-collector A. Alvarez C. Bulk collection. Plants tall. Seeds white. Consumed toasted, used as flour. Leaves eaten with young. Local name Achis. Cultivated. Seed.
481956. LFD-AAC 178. Peru. Rodale Research Center. RRC 903. Collected June 02, 1982. Nunucoto, Carhuaz, Ancash. 2790m. Co-collector A. Alvarez C. Bulk collection. Seeds tan, white. Consumed for breakfast and as candies. Local name Achis. Cultivated. Seed.
481957. LFD-AAC 179. Peru. Rodale Research Center. RRC 904. Collected June 02, 1982. Nunucoto, Carhuaz, Ancash. 2820m. Co-collector A. Alvarez C. Bulk collection. Seeds tan, white. Consumed for breakfast and as candies. Local name Achis. Cultivated. Seed.
481958. LFD-AAC 180. Peru. Rodale Research Center. RRC 905. Collected June 02, 1982. Nunucoto, Carhuaz, Ancash. 2840m. Co-collector A. Alvarez C. Bulk collection. Seeds tan, white, black. Consumed for breakfast and as candies. Leaves eaten when young. Local name Achis. Cultivated. Seed.
481959. LFD-AAC 183. Peru. Rodale Research Center. RRC 908. Collected June 02, 1982. Huarimayo-Caserio, Chavin, Huari, Ancash. 3060m. Co-collector A. Alvarez C. Bulk collection. Seeds tan. Consumed toasted, used as flour, and as candy. Local name Achis. Cultivated. Seed.
481960. LFD-AAC 189. Peru. Rodale Research Center. RRC 914. Collected June 03, 1982. Succha, Huantar, Huari, Ancash. 2910m. Co-collector A. Alvarez C. Bulk collection. Seeds

481947 TO 481972-continued

- white. Consumed toasted for breakfast and used for flour. Local name Achis. Cultivated. Seed.
481961. LFD-AAC 191. Peru. Rodale Research Center. RRC 916. Collected June 03, 1982. Uranchacra, Huantar, Huari, Ancash. 2820m. Co-collector A. Alvarez C. Bulk collection. Seeds tan, a few black. Consumed toasted for breakfast and soup. Used same as wheat. Local name Achis. Cultivated. Seed.
481962. LFD-AAC 192. Peru. Rodale Research Center. RRC 917. Collected June 03, 1982. Uranchacra, Huantar, Huari, Ancash. 2820m. Co-collector A. Alvarez C. Bulk collection. Planted in October/November. Harvested in June. Flowers mixed colors, green, rose and red. Seeds tan. Used as wheat, for breakfast, and soup. Local name Achis. Cultivated. Seed.
481963. LFD-AAC 193. Peru. Rodale Research Center. RRC 918. Collected June 03, 1982. Pomachaca, Huari, Ancash. 2740m. Co-collector A. Alvarez C. Bulk collection. Seeds tan. Used toasted and for flour. Local name Achis. Cultivated. Seed.
481964. LFD-AAC 196. Peru. Rodale Research Center. RRC 921. Collected June 03, 1982. Cardonyoc, Cajay, Huari, Ancash. 2880m. Co-collector A. Alvarez C. Bulk collection. Seeds tan, a few pink. Local name Achis. Cultivated. Seed.
481965. LFD-AAC 201. Peru. Rodale Research Center. RRC 926. Collected June 03, 1982. Huari, Huari, Ancash. 3040m. Co-collector A. Alvarez C. Single plant collection. Plant 2m tall. Flowers yellow-gold. Seeds white. In field associated with corn. Local name Achis. Cultivated. Seed.
481966. LFD-AAC 204. Peru. Rodale Research Center. RRC 929. Collected June 04, 1982. Succha, Huanta, Ancash. 2870m. Co-collector A. Alvarez C. Bulk collection. Seeds white. Associated with corn. Local name Achis. Cultivated. Seed.
481967. LFD-AAC 206. Peru. Rodale Research Center. RRC 931. Collected June 04, 1982. Orcush, San Marcos, Huari, Ancash. 2960m. Co-collector A. Alvarez C. Bulk collection. Flowers rose colored. Seeds white. Used for soup, toasted for breakfast, flour, and candies. Local name Achis. Cultivated. Seed.
481968. LFD-AAC 207. Peru. Rodale Research Center. RRC 932. Collected June 04, 1982. Cochao, San Marcos, Huari, Ancash. 2600m. Co-collector A. Alvarez C. Bulk collection from J. Pena. Seeds tan. Local name Achis. Cultivated. Seed.

481947 TO 481972-continued

481969. LFD-AAC 209. Peru. Rodale Research Center. RRC 934. Collected June 04, 1982. Gauchc Farm, San Marcos, Huari, Ancash. Co-collector A. Alvarez C. Bulk collection. Seeds tan. Local name Achis. Cultivated. Seed.
481970. LFD-AAC 217. Peru. Rodale Research Center. RRC 942. Collected June 05, 1982. Comunidad Santa Isabel de Marcac, Huaraz, Huaraz, Ancash. 2900m. Co-collector A. Alvarez C. Bulk collection. Seeds white, a few black. Used toasted, breakfast, soup, flour, candy, and as main dish. Local name Achis. Cultivated. Seed.
481971. LFD-AAC 222. Peru. Rodale Research Center. RRC 947. Collected June 05, 1982. Comunidad Santa Isabel de Marcac, Huaraz, Huaraz, Ancash. 2900m. Co-collector A. Alvarez C. Bulk collection growing with corn. Seeds tan, a few black. Used toasted, breakfast, soup, flour, candy, and as main dish. Local name Achis. Cultivated. Seed.
481972. LFD-AAC 223. Peru. Rodale Research Center. RRC 948. Collected June 05, 1982. Comunidad Santa Isabel de Marcac, Huaraz, Huaraz, Ancash. 2900m. Co-collector A. Alvarez C. Bulk collection growing with corn. Seeds tan, a few pink and black. Used toasted, breakfast, soup, flour, candy, and as main dish. Local name Achis. Cultivated. Seed.

481973 TO 482043. *Abelmoschus esculentus* (L.) Moench (Malvaceae) Ckra.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

481973. TGR 31. Zimbabwe. Latitude: 17 deg 32 m S; Longitude: 031 deg 18 m E. Collected June 08, 1982. Backyard, 4km E of Makumbe BC, Mashonaland East Province. 1200m. Sown in December, harvested April. Used for relish. Local name Chipudzi. Cultivated. Seed.
481974. TGR 93. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmland, 36km NE of Guto Do, Gutu District, Victoria Province. 1100m. Found with wild Hibiscus. Cultivated. Seed.
481975. TGR 144. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 44 m E. Collected April 17, 1982. Farmland, 1 km from Magaisa, Bikita District, Victoria Province. 660m. Sown November, harvested April. Cultivated. Seed.

481973 TO 482043-continued

481976. TGR 239. Zimbabwe. Latitude: 32 deg 11 m S; Longitude: 020 deg 48 m E. Collected April 21, 1982. Farmland, 29km N of Sabi Bridge, Chiredze District, Victoria Province. 410m. Cultivated. Seed.
481977. TGR 491. Zimbabwe. Latitude: 20 deg 03 m S; Longitude: 032 deg 52 m E. Collected May 05, 1982. Backyard, 1 km E of Gata Rest Camp, Manicaland Province. 700m. Sown September, harvested May. Growing with wild Hibiscus. Cultivated. Seed.
481978. TGR 503. Zimbabwe. Latitude: 20 deg 04 m S; Longitude: 032 deg 47 m E. Collected May 05, 1982. Backyard, 3.5km SE of Gata Rest Camp, Manicaland Province. 700m. Sown December. Cultivated. Seed.
481979. TGR 559. Zimbabwe. Latitude: 19 deg 34 m S; Longitude: 032 deg 37 m E. Collected May 07, 1982. Backyard, 5.2km W of Mhadziwe BC, Manicaland Province. 1050m. Sown November. Plant very tall. Cultivated. Seed.
481980. TGR 604. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Backyard, 1 km S of Tamandayi BC, Manicaland Province. 700m. Cultivated. Seed.
481981. TGR 700. Zimbabwe. Latitude: 18 deg 47 m S; Longitude: 029 deg 26 m E. Collected May 18, 1982. Farmland, 22.6km E of Zhombe BC, Midlands Province. 1050m. Sown November. Cultivated. Seed.
481982. TGR 730. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmland, 28km N of Zhombe BC, Midlands Province. 1050m. Cultivated. Seed.
481983. TGR 920. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 18 m E. Collected May 24, 1982. Farmstore, 29km NW of Mkaba BC, Midlands Province. 1300m. Cultivated. Seed.
481984. TGR 927. Zimbabwe. Latitude: 19 deg 14 m S; Longitude: 029 deg 58 m E. Collected May 24, 1982. Farmstore, 5km E of Mucharata, Midlands Province. 1300m. Cultivated. Seed.
481985. TGR 1162. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 030 deg 17 m E. Collected May 28, 1982. Farmstore, 7km N of Zurubi, Midlands Province. 850m. Cultivated. Seed.
481986. TGR 1215. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farmstore, 6km E of Tsanzaguru BC, Midlands Province. 1320m. Cultivated. Seed.

481973 TO 482043-continued

481987. TGR 1255. Zimbabwe. Latitude: 17 deg 50 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmland, in Nyautare, Manicalands Province. 1100m. Plants associated with wild types of okra, *Corchorus olitorius* and *C. tridens*. Cultivated. Seed.
481988. TGR 1286. Zimbabwe. Latitude: 17 deg 52 m S; Longitude: 032 deg 55 m E. Collected June 03, 1982. Farmstore, Nyanurundira, Manicaland Province. 1200m. Cultivated. Seed.
481989. TGR 1303. Zimbabwe. Latitude: 18 deg 33 m S; Longitude: 032 deg 46 m E. Collected June 07, 1982. Farmstore, Samanga school, Manicaland Province. 850m. Sown November. Cultivated. Seed.
481990. TGR 1314. Zimbabwe. Latitude: 18 deg 34 m S; Longitude: 032 deg 48 m E. Collected June 07, 1982. Honde BC, Manicaland Province. 650m. Cultivated. Seed.
481991. TGR 1326. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 5km E of Honde Mission, Manicaland Province. 900m. Cultivated. Seed.
481992. TGR 1348. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km E of Honde Mission, Manicaland Province. 900m. Sown November. Cultivated. Seed.
481993. TGR 1427. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Cultivated. Seed.
481994. TGR 1440. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Cultivated. Seed.
481995. TGR 1479. Zimbabwe. Latitude: 17 deg 41 m S; Longitude: 029 deg 45 m E. Collected June 15, 1982. Farmstore, Hombwe BC, Mashonaland West Province. 900m. Cultivated. Seed.
481996. TGR 1486. Zimbabwe. Latitude: 17 deg 45 m S; Longitude: 029 deg 42 m E. Collected June 15, 1982. Farmstore, 10km SW of Hombwe BC, Mashonaland West Province. 900m. Cultivated. Seed.
481997. TGR 1518. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 029 deg 38 m E. Collected June 16, 1982. Farmstore, N of

481973 TO 482043-continued

- Mapfungine School, Mashonaland West Province. 880m. Pods short. Plants associated with PI 481998. Cultivated. Seed.
481998. TGR 1519. Zimbabwe. Latitude: 17 deg 33 n S; Longitude: 029 deg 38 n E. Collected June 16, 1982. Farmstore, N from Mapfungline BC, Mashonaland West Province. 880m. Pods long. Plants associated with PI 481997. Cultivated. Seed.
481999. TGR 1536. Zimbabwe. Latitude: 17 deg 27 n S; Longitude: 029 deg 35 n E. Collected June 16, 1982. Farmstore, 1 km W of Kenzamba, Mashonaland West Province. 900m. Cultivated. Seed.
482000. TGR 1540. Zimbabwe. Latitude: 17 deg 26 n S; Longitude: 029 deg 31 n E. Collected June 16, 1982. Farmstore, Nyare BC, Mashonaland West Province. 900m. Cultivated. Seed.
482001. TGR 1545. Zimbabwe. Latitude: 17 deg 33 n S; Longitude: 029 deg 29 n E. Collected June 16, 1982. Farmstore, Obva BC, Mashonaland West Province. 850m. Cultivated. Seed.
482002. TGR 1562. Zimbabwe. Latitude: 17 deg 37 n S; Longitude: 030 deg 11 n E. Collected June 18, 1982. Farmstore, 15km N of Murumbedu BC, Mashonaland Province. 1000m. Cultivated. Seed.
482003. TGR 1565. Zimbabwe. Latitude: 17 deg 39 n S; Longitude: 030 deg 05 n E. Collected June 18, 1982. Farmstore, 2km E of Chivere BC, Mashonaland West Province. 1100m. Short pod. Cultivated. Seed.
482004. TGR 1577. Zimbabwe. Latitude: 17 deg 43 n S; Longitude: 030 deg 07 n E. Collected June 18, 1982. Farmstore, Murindagomo BC, Mashonaland West Province. 1200m. Cultivated. Seed.
482005. TGR 1604. Zimbabwe. Latitude: 17 deg 46 n S; Longitude: 030 deg 17 n E. Collected June 18, 1982. Farmstore, Madizima BC, Mashonaland West Province. 1300m. Cultivated. Seed.
482006. TGR 1621. Zimbabwe. Latitude: 16 deg 56 n S; Longitude: 029 deg 23 n E. Collected June 21, 1982. Farmstore, S of Magumje BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482007. TGR 1639. Zimbabwe. Latitude: 16 deg 46 n S; Longitude: 029 deg 24 n E. Collected June 21, 1982. Backyard, 12km NW of Magumje BC, Mashonaland West Province. 1100m. Plants very tall. Leaves and pods used. Cultivated. Seed.
482008. TGR 1675. Zimbabwe. Latitude: 17 deg 07 n S; Longitude:

481973 TO 482043-continued

- 029 deg 20 m E. Collected June 22, 1982. Farmstore, 14km S of Samuriwo BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482009. TGR 1698. Zimbabwe. Latitude: 17 deg 09 m S; Longitude: 029 deg 29 m E. Collected June 22, 1982. Farmstore, 4km N from Chimusimbe BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482010. TGR 1702. Zimbabwe. Latitude: 17 deg 06 m S; Longitude: 029 deg 30 m E. Collected June 22, 1982. Farmstore, 12km N of Chimusimbe BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482011. TGR 1711. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 36 m E. Collected June 23, 1982. Farmland, 4km NE of Chitakerwer bridge, Mashonaland Province. 1000m. Cultivated. Seed.
482012. TGR 1759. Zimbabwe. Latitude: 16 deg 29 m S; Longitude: 029 deg 53 m E. Collected June 24, 1982. Farmstore, 14km N of Kadunga BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482013. TGR 1793. Zimbabwe. Latitude: 16 deg 36 m S; Longitude: 029 deg 56 s E. Collected June 24, 1982. Farmstore, 21km E of Kadunga BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482014. TGR 1797. Zimbabwe. Latitude: 16 deg 40 m S; Longitude: 029 deg 50 m E. Collected June 24, 1982. Farmstore, 9km E of Miami BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482015. TGR 1833. Zimbabwe. Latitude: 17 deg 32 m S; Longitude: 031 deg 27 m E. Collected June 29, 1982. Farmstore, 9km E of Nyava PC, Mashonaland West Province. 1300m. Cultivated. Seed.
482016. TGR 1837. Zimbabwe. Latitude: 16 deg 59 m S; Longitude: 030 deg 31 m E. Collected June 30, 1982. Farmstore, 6km E of Madziva rest camp, Mashonaland Central Province. 1020m. Sown November. Pods long, pointed. Cultivated. Seed.
482017. TGR 1845. Zimbabwe. Latitude: 17 deg 07 m S; Longitude: 031 deg 36 m E. Collected June 30, 1982. Farmstore, 4km N of Chakonda BC, Mashonaland Central Province. 950m. Cultivated. Seed.
482018. TGR 1855. Zimbabwe. Latitude: 17 deg 13 m S; Longitude: 031 deg 37 m E. Collected June 30, 1982. Farmstore at Cheshaba school, Mashonaland Central Province. 1100m. Plant very tall. Pods long, pointed. Cultivated. Seed.



481973 TO 482043-continued

482019. TGR 1857. Zimbabwe. Latitude: 16 deg 56 m S; Longitude: 031 deg 33 m E. Collected June 30, 1982. Farmstore, 10km E of Chief Madziwa, Mashonaland Central Province. 1050m. Wild types present. Cultivated. Seed.
482020. TGR 1875. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 031 deg 54 m E. Collected July 01, 1982. Farmstore, 1 km N of Nyamahobogo, Mashonaland Central Province. 900m. Sown November. Cultivated. Seed.
482021. TGR 1876. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 031 deg 54 m E. Collected July 01, 1982. Farmstore, 2km NE from Nyamahobogo, Mashonaland Central Province. 900m. Sown November. Pods short. Cultivated. Seed.
482022. TGR 1908. Zimbabwe. Latitude: 16 deg 39 m S; Longitude: 032 deg 24 m E. Collected July 01, 1982. Farmstore, 12km W of Marymount Mission, Mashonaland Central Province. 650m. Cultivated. Seed.
482023. TGR 1913. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 032 deg 01 m E. Collected July 01, 1982. Farmstore, 3km N of Rushinga, Mashonaland Central Province. 1000m. Cultivated. Seed.
482024. TGR 1919. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 031 deg 42 m E. Collected July 02, 1982. Farmstore, Mukumbura BC, Mashonaland Central Province. 450m. Cultivated. Seed.
482025. TGR 1936. Zimbabwe. Latitude: 16 deg 25 m S; Longitude: 031 deg 49 m E. Collected July 02, 1982. Farmstore, 29km SE of Mukumbura BC, Mashonaland Central Province. 900m. Cultivated. Seed.
482026. TGR 1942A. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 49 m E. Collected July 03, 1982. Farmstore, 3km W of Ganderson Mission, Mashonaland Central Province. 900m. Pod splits to more than five. Cultivated. Seed.
482027. TGR 1942B. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 49 m E. Collected July 03, 1982. Farmstore, 3km W of Ganderson Mission, Mashonaland Central Province. 900m. Pods split into five sections. Cultivated. Seed.
482028. TGR 1950. Zimbabwe. Latitude: 16 deg 32 m S; Longitude: 031 deg 40 m E. Collected July 03, 1982. Farmstore, Chitsato School, Mashonaland Central Province. 880m. Cultivated. Seed.
482029. TGR 1954. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 45 m E. Collected July 03, 1982. Farmstore, E of

481973 TO 482043--continued

- Chawanda BC, Mashonaland Central Province. 980m.  
Cultivated. Seed.
482030. TGR 1975. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, E of Chawanda BC, Mashonaland Central Province. 960m. Sown November, harvested April. Cultivated. Seed.
482031. TGR 1976. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Pods short. Cultivated. Seed.
482032. TGR 1977. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Pods short, fat. Cultivated. Seed.
482033. TGR 1978. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Pods medium lng. Cultivated. Seed.
482034. TGR 1985A. Zimbabwe. Latitude: 16 deg 33 m S; Longitude: 031 deg 34 m E. Collected July 04, 1982. Farmstore, 1 km W of Dotito BC, Mashonaland Central Province. 990m. Pods split into more than five sections. Cultivated. Seed.
482035. TGR 1985E. Zimbabwe. Latitude: 16 deg 33 m S; Longitude: 031 deg 34 m E. Collected July 04, 1982. Farmstore, 1 km W of Dotito BC, Mashonaland Central Province. 990m. Pods split into less than five sections. Cultivated. Seed.
482036. TGR 1993. Zimbabwe. Latitude: 16 deg 34 m S; Longitude: 031 deg 35 m E. Collected July 04, 1982. Farmstore, Dotito BC, Mashonaland Central Province. 990m. Pods long and short. Cultivated. Seed.
482037. TGR 2008. Zimbabwe. Latitude: 16 deg 22 m S; Longitude: 031 deg 01 m E. Collected July 06, 1982. Farmstore, Mzarabani estate, Mashonaland Central Province. 910m. Pods long. Cultivated. Seed.
482038. TGR 2020. Zimbabwe. Latitude: 16 deg 18 m S; Longitude: 031 deg 05 m E. Collected July 06, 1982. Farmstore, 25km NE of Mzarabsni, Mashonaland Central Province. 400m. Cultivated. Seed.
482039. TGR 2029. Zimbabwe. Latitude: 16 deg 07 m S; Longitude: 031 deg 06 m E. Collected July 06, 1982. Farmstore, 4km SW of Msengedzi Mission, Mashonaland Central Province. 300m. Cultivated. Seed.

481973 TO 482043-continued

482040. TGR 2040. Zimbabwe. Latitude: 16 deg 16 m S; Longitude: 030 deg 28 m E. Collected July 07, 1982. Farmstore, E of Chitsugo Mission, Mashonaland Central Province. 400m. Plants tall. Pods long. Fruits all year. Cultivated. Seed.
482041. TGR 2046. Zimbabwe. Latitude: 16 deg 03 m S; Longitude: 030 deg 18 m E. Collected July 07, 1982. Farmstore, 9km W of Angwa Bridge, Mashonaland Central Province. 400m. Cultivated. Seed.
482042. TGR 2060. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 030 deg 45 m E. Collected July 08, 1982. Farmstore, 7km S of Sipolilo, Mashonaland Central Province. 1250m. Cultivated. Seed.
482043. TGR 2087. Zimbabwe. Latitude: 17 deg 52 m S; Longitude: 031 deg 08 m E. Collected July 09, 1982. Farmstore, 10km N of Madombwe, Mashonaland Central Province. 1300m. Cultivated. Seed.

482044 TO 482056. *Amaranthus hybridus* L. (Amaranthaceae).

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482044. TGR 83. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 22 m E. Collected April 15, 1982. Backyard, 32km NE of Gutu Do, Gutu District, Victoria Province. 1100m. No use. Cultivated. Seed.
482045. TGR 261. Zimbabwe. Latitude: 20 deg 31 m S; Longitude: 031 deg 31 m E. Collected April 23, 1982. Backyard, 36km SE of Zaka, Ndanga District, Victoria Province. 570m. Leaves eaten. Red pigmentation. Cultivated. Seed.
482046. TGR 339. Zimbabwe. Latitude: 20 deg 25 m S; Longitude: 031 deg 25 m E. Collected April 30, 1982. Backyard, 10km S of Zaka, Victoria Province. 720m. Leaves bitter, not eaten. Heavy red pigmentation. Cultivated. Seed.
482047. TGR 529. Zimbabwe. Latitude: 20 deg 01 m S; Longitude: 032 deg 57 m E. Collected May 06, 1982. Backyard, 13km E of Rustio Mission, Manicaland Province. 1020m. Leaves eaten as vegetables. Cultivated. Seed.
482048. TGR 540. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Backyard, 1.7km W of Mhedziwa BC, Manicaland Province. 1030m. Leaves used

482044 TO 482056-continued

for vegetables. Leaves red pigmented. Cultivated. Seed.

482049. TGR 542. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Backyard, 1.7km W of Mhedziwa BC, Manicaland Province. 1030m. Leaves used for vegetables. Heads white, no pigmentation. Cultivated. Seed.
482050. TGR 599. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 15, 1982. Backyard, 1 km S of Tamandayi BC, Manicaland Province. 700m. Leaves eaten. Red pigmentation. Cultivated. Seed.
482051. TGR 603. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Backyard, 1 km S of Tamandayi BC, Manicaland Province. 700m. Leaves used when tender. Cultivated. Seed.
482052. TGR 701. Zimbabwe. Latitude: 18 deg 47 m S; Longitude: 029 deg 26 m E. Collected May 18, 1982. Backyard, 22.6km E of Zhombe BC, Midlands Province. 1150m. Used as vegetables. Leaves eaten. Highly pigmented. Cultivated. Seed.
482053. TGR 702. Zimbabwe. Latitude: 18 deg 47 m S; Longitude: 029 deg 26 m E. Collected May 18, 1982. Backyard, 22.6km E of Zhombe BC, Midlands Province. 1150m. Used as vegetables. Unpigmented. Cultivated. Seed.
482054. TGR 846. Zimbabwe. Latitude: 18 deg 15 m S; Longitude: 028 deg 24 m E. Collected May 21, 1982. Backyard, 35km W of Gokwe Do, Midlands Province. 1100m. Leaves used as vegetables. Highly pigmented. Wild. Seed.
482055. TGR 1216. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Backyard, 6km S of Tsanzaguru BC, Manicaland Province. 1320m. Red pigmentation. Cultivated. Seed.
482056. TGR 1640. Zimbabwe. Latitude: 16 deg 46 m S; Longitude: 029 deg 24 m E. Collected June 21, 1982. Backyard, 12km NW from Magunge BC, Mashonaland West Province. 1100m. Leaves used. Pigmented. Cultivated. Seed.

482057 TO 482059. *Amaranthus spinosus* L. (Amaranthaceae).

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482057 TO 482059-continued

482057. TGR 340. Zimbabwe. Latitude: 20 deg 25 m S; Longitude: 031 deg 25 m E. Collected April 30, 1982. Backyard, 10km S of Zaka, Victoria Province. 720m. Leaves burnt and mixed for snuff. Inflorescence pink pigmented. Wild. Seed.
482058. TGR 541. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Backyard, 1.7km W of Mhediwa BC, Manicaland Province. 1030m. Leaves green used as vegetable. Inflorescence pink. Wild. Seed.
482059. TGR 602. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Backyard, 1 km S of Tamandami BC, Manicaland Province. 700m. Leaves eaten. Inflorescence pink. Wild. Seed.

482060 TO 482242. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482060. TGR 5. Zimbabwe. Latitude: 18 deg 17 m S; Longitude: 031 deg 11 m E. Collected April 07, 1982. Farmstore, 2.5km N of Mahusekwa, Mashonaland East Province. 1487m. Sown October, harvested March. Used for oil and eaten raw or boiled. Seeds white. Local name Kaboko ka-chena. Cultivated. Seed.
482061. TGR 6. Zimbabwe. Latitude: 18 deg 17 m S; Longitude: 031 deg 11 m E. Collected April 07, 1982. Farmland, 2.5km N of Mahusekwa, Mashonaland East Province. 1487m. Sown October, harvested March. Used for oil and eaten raw or boiled. Seeds red. Local name Kaboko ka-tsuku. Wild. Seed.
482062. TGR 7. Zimbabwe. Latitude: 18 deg 17 m S; Longitude: 031 deg 11 m E. Collected April 07, 1982. Farmland, 2.5km N of Mahusekwa, Mashonaland East Province. 1487m. Sown September, harvested March. Used for oil and eaten raw or boiled. Pods large. Seeds white. Local name Mulonono. Cultivated. Seed.
482063. TGR 17. Zimbabwe. Latitude: 18 deg 16 m S; Longitude: 031 deg 11 m E. Collected April 07, 1982. Farmland, 2.5km NW of Mahueskwa, Mashonaland East Province. 1487m. Sown November, harvested April. Seeds orange. Local name Chinhandara. Cultivated. Seed.
482064. TGR 24. Zimbabwe. Latitude: 17 deg 32 m S; Longitude: 031 deg 17 m E. Collected April 08, 1982. Farmland, 1.6km

482060 TO 482242-continued

- E of Makumbe BC, Mashonaland East Province. 1400m. Sown November, harvested April. Intercropped with pumpkin. Upright type. Local name Tumbe. Cultivated. Seed.
482065. TGR 32. Zimbabwe. Latitude: 17 deg 29 m S; Longitude: 031 deg 19 m E. Collected April 08, 1982. Farmland, 7km NE of Makumbe, Mashonaland East Province. 1150m. Sown November, harvested April. Rosette virus present. Cultivated. Seed.
482066. TGR 51. Zimbabwe. Latitude: 20 deg 12 m S; Longitude: 030 deg 26 m E. Collected April 14, 1982. Farmland, 9km N of Chibi Do, Chibi District, Victoria Province. 950m. Sown November, harvested February. Mixture of two pod types - Chiburandaya; usually two seeded, and Mutatu, more than two seeded. Cultivated. Seed.
482067. TGR 92. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmland, 36km NE of Gutu Do, Gutu District, Victoria Province. 1100m. Sown November, harvested April. Rosette virus present. Cultivated. Seed.
482068. TGR 94. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmstore, 37km NE of Gutu Do, Gutu District, Victoria Province. 1150m. Sown October, harvested March. Local name Chiburandaya. Cultivated. Seed.
482069. TGR 118. Zimbabwe. Latitude: 19 deg 51 m S; Longitude: 030 deg 22 m E. Collected April 16, 1982. Farmland, 41km S of Gutu Do, Gutu District, Victoria Province. 1250m. Sown November, harvested May. Local name Chibandawhe. Cultivated. Seed.
482070. TGR 129. Zimbabwe. Latitude: 20 deg S; Longitude: 031 deg 50 m E. Collected April 16, 1982. Farmstore, 42km E of Bikita Do, Bikita District, Victoria Province. 900m. Sown November, harvested April. Local name Chibandawhe. Cultivated. Seed.
482071. TGR 174. Zimbabwe. Latitude: 20 deg 15 m S; Longitude: 031 deg 03 m E. Collected April 19, 1982. Farmstore, 3km E of Mashenjere, Victoria Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482072. TGR 177. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 04 m E. Collected April 19, 1982. Farmstore, 25km SE of Dombodema, Victoria Province. 800m. Sown October, harvested April. Cultivated. Seed.
482073. TGR 194. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 031 deg 09 m E. Collected April 19, 1982. Farmland, 72km

482060 TO 482242-continued

S of Kyle Dam Wall, Victoria Province. 700m. Sown December, harvested April. Local name Chinjanjani. Cultivated. Seed.

482074. TGR 202. Zimbabwe. Latitude: 20 deg 54 m S; Longitude: 030 deg 45 m E. Collected April 20, 1982. Farmstore, 5km S of Lundi Bridge, Nuanetsi District, Victoria Province. 565m. Sown October, harvested April. Local name Mutatu. Cultivated. Seed.
482075. TGR 214. Zimbabwe. Latitude: 21 deg 03 m S; Longitude: 030 deg 26 m E. Collected April 20, 1982. Farmstore, 34km W of Neshuro, Nuanetsi District, Victoria Province. 640m. Sown November. Local name Chiburandaya. Cultivated. Seed.
482076. TGR 221. Zimbabwe. Latitude: 20 deg 17 m S; Longitude: 030 deg 28 m E. Collected April 25, 1982. Farmstore, 84km S of Neshuro, Nuanetsi District, Victoria Province. 580m. Sown October. Local name Mapunde. Cultivated. Seed.
482077. TGR 248. Zimbabwe. Latitude: 22 deg 56 m S; Longitude: 031 deg 12 m E. Collected April 22, 1982. Farmstore, 25km N of Malipati, Chiredze District, Victoria Province. 340m. Cultivated. Seed.
482078. TGR 252. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 031 deg 30 m E. Collected April 23, 1982. Farmstore, 15km SE of Zaka, Ndanga District, Victoria Province. 660m. Sown November. Local name Chinzunginana. Cultivated. Seed.
482079. TGR 258. Zimbabwe. Latitude: 20 deg 31 m S; Longitude: 031 deg 31 m E. Collected April 23, 1982. Farmstore, 36km SWS from Zaka, Ndanga District, Victoria Province. 570m. Sown October. Cultivated. Seed.
482080. TGR 264. Zimbabwe. Latitude: 20 deg 05 m S; Longitude: 030 deg 50 m E. Collected April 25, 1982. Market, Fort Victoria, Victoria Province. 900m. Seeds originally from Zaka. Cultivated. Seed.
482081. TGR 265. Zimbabwe. Latitude: 20 deg 05 m S; Longitude: 030 deg 50 m E. Collected April 25, 1982. Market, Fort Victoria, Victoria Province. 900m. Seeds originally from Chibi. Cultivated. Seed.
482082. TGR 281. Zimbabwe. Latitude: 20 deg 36 m S. Collected April 26, 1982. Farmland 6km W of Berejena Junction, Victoria Province. 750m. Local name Chiburandaja. Cultivated. Seed.
482083. TGR 290. Zimbabwe. Latitude: 20 deg 45 m S; Longitude: 030 deg 41 m E. Collected April 26, 1982. Farmstore, 29km S of Tungnana Bridge, Victoria Province. 670m. Cultivated.

482060 TO 482242-continued  
Seed.

482084. TGR 298. Zimbabwe. Latitude: 19 deg 53  $\text{m}$  S; Longitude: 030 deg 51  $\text{m}$  E. Collected April 29, 1982. Farmstore, 23km N of Fort Victoria, Victoria Province. 1200m. Sown October, harvested March. Local name Chinjanhani. Cultivated. Seed.
482085. TGR 305. Zimbabwe. Latitude: 19 deg 48  $\text{m}$  S; Longitude: 030 deg 51  $\text{m}$  E. Collected April 29, 1982. Farmstore, 30km N of Fort Victoria, Victoria Province. 1240m. Sown October, harvested April. Local name Chinjanhani. Cultivated. Seed.
482086. TGR 317. Zimbabwe. Latitude: 19 deg 46  $\text{m}$  S; Longitude: 030 deg 57  $\text{m}$  E. Collected April 29, 1982. Farmstore, 43km N of Fort Victoria, Victoria Province. 1300m. Sown October, harvested April. Local name Chinjanjani. Cultivated. Seed.
482087. TGR 320. Zimbabwe. Latitude: 19 deg 50  $\text{m}$  S; Longitude: 030 deg 55  $\text{m}$  E. Collected April 29, 1982. Farmstore, 58km NE of Fort Victoria, Victoria Province. 900m. Cultivated. Seed.
482088. TGR 331. Zimbabwe. Latitude: 20 deg 24  $\text{m}$  S; Longitude: 031 deg 27  $\text{m}$  E. Collected April 30, 1982. Farmstore, 8km S of Zaka, Victoria Province. 780m. Sown November, harvested April. Cultivated. Seed.
482089. TGR 355. Zimbabwe. Latitude: 20 deg 28  $\text{m}$  S; Longitude: 031 deg 22  $\text{m}$  E. Collected April 30, 1982. Farmstore, 23km SW of Zaka, Victoria Province. 850m. Cultivated. Seed.
482090. TGR 357. Zimbabwe. Latitude: 20 deg 19  $\text{m}$  S; Longitude: 031 deg 26  $\text{m}$  E. Collected April 30, 1982. Farmstore, 6.5km N of Zaka, Victoria Province. 850m. Cultivated. Seed.
482091. TGR 368. Zimbabwe. Latitude: 20 deg 13  $\text{m}$  S; Longitude: 031 deg 24  $\text{m}$  E. Collected April 30, 1982. Farmstore, 22km N of Zaka, Victoria Province. 960m. Local name Chizungioana. Cultivated. Seed.
482092. TGR 382. Zimbabwe. Collected May 01, 1982. Bulawayoshoro, W of Que Que, Midlands West Province. Local name Chimhandara. Cultivated. Seed.
482093. TGR 404. Zimbabwe. Collected May 01, 1982. Bulawayo Show, near Zuishabane, Midlands South Province. Local name Chiburandai. Cultivated. Seed.
482094. TGR 408. Zimbabwe. Collected May 01, 1982. Bulawayo



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- Show, near Zuishaband, Midlands South Province. Local name Valencia Late (improved). Cultivated. Seed.
482095. TGR 409. Zimbabwe. Collected May 01, 1982. Bulawayo Show, near Zuishabani, Midlands South Province. Cultivated. Seed.
482096. TGR 421. Zimbabwe. Collected May 01, 1982. Bulawayo Show, S of Nkayi, Matebeleland North Province. Cultivated. Seed.
482097. TGR 424. Zimbabwe. Collected May 01, 1982. Bulawayo Show, near Chilimanzi, Midlands East Province. Cultivated. Seed.
482098. TGR 425. Zimbabwe. Collected May 01, 1982. Bulawayo Show, near Chilimanzi, Midlands East Province. Cultivated. Seed.
482099. TGR 432. Zimbabwe. Collected May 01, 1982. Bulawayo Show, near Plumtree, Matebeleland East Province. Cultivated. Seed.
482100. TGR 438. Zimbabwe. Collected May 01, 1982. Bulawayo Show, near Belingne, Midlands South Province. Cultivated. Seed.
482101. TGR 489. Zimbabwe. Latitude: 20 deg 03 m S; Longitude: 032 deg 52 m E. Collected May 05, 1982. Farmstore, 1 km E of Gata rest camp, Manicaland Province. 700m. Sown September, harvested April. Cultivated. Seed.
482102. TGR 530. Zimbabwe. Latitude: 20 deg 01 m S; Longitude: 032 deg 57 m E. Collected May 06, 1982. Farmstore, 13km E of Rusitio mission, Manicaland Province. 1020m. Sown November, harvested April. Local name Chinzungwana. Early maturing variety. Cultivated. Seed.
482103. TGR 555. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. West 1.7km from Mhedzina BC, Manicaland Province. 1030m. Sown November. Local name Kaswaya. Cultivated. Seed.
482104. TGR 571. Zimbabwe. Latitude: 19 deg 41 m S; Longitude: 032 deg 57 m E. Collected May 08, 1982. Farmland, 3.2km E of Chikukwa BC, Manicaland Province. 1500m. Sown November, harvested May. Local name Kingi. Cultivated. Seed.
482105. TGR 582. Zimbabwe. Latitude: 19 deg 42 m S; Longitude: 032 deg 50 m E. Collected May 08, 1982. Farmland, Chikukwa BC, Manicaland Province. 1200m. Sown November. Cultivated. Seed.

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482106. TGR 600. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Farmstore, 1 km S of Tamandayi BC, Manicaland Province. 700m. Sown October. Local name Chinzungwana. Cultivated. Seed.
482107. TGR 619. Zimbabwe. Latitude: 20 deg 21 m S; Longitude: 032 deg 45 m E. Collected May 10, 1982. Farmstore, 13.4km SW of Tamandayi BC, Manicaland. 1200m. Sown November. Local name Kasawaya. Cultivated. Seed.
482108. TGR 643. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 032 deg 45 m E. Collected May 11, 1982. Farmstore, 8.3km S of Mt. Selinda Mission, Manicaland Province. 860m. Sown October. Local name Chinzungwana. Cultivated. Seed.
482109. TGR 662. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 029 deg 07 m E. Collected May 17, 1982. Farmstore, 2.5km W of Crossroads, Midland Province. 1000m. Sown November, harvested April. Local name Chinhandara. Cultivated. Seed.
482110. TGR 670. Zimbabwe. Latitude: 18 deg 50 m S; Longitude: 029 deg 03 m E. Collected May 17, 1982. Farmstore, 32.6km W of Crossroads, Midlands Province. 1000m. Sown December, harvested April. Local name Chinhauira. Cultivated. Seed.
482111. TGR 683. Zimbabwe. Latitude: 18 deg 48 m S; Longitude: 028 deg 58 m E. Collected May 17, 1982. Farmstore, 39km W of Crossroads, Midlands Province. 1000m. Sown November. Cultivated. Seed.
482112. TGR 685. Zimbabwe. Latitude: 18 deg 48 m S; Longitude: 028 deg 58 m E. Collected May 17, 1982. Farmstore, 39km W of Crossroads, Midlands Province. 1000m. Local name Cibrandai. Cultivated. Seed.
482113. TGR 697. Zimbabwe. Latitude: 18 deg 47 m S; Longitude: 029 deg 26 m E. Collected May 18, 1982. Farmstore, 22.6km E of Zhombe BC, Midlands Province. 1150m. Sown December. Local name Chinhandara. Cultivated. Seed.
482114. TGR 734. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmstore, 28km N of Zhombe BC, Midlands Province. 1080m. Sown November. Local name Chibrandaya. Cultivated. Seed.
482115. TGR 751. Zimbabwe. Latitude: 19 deg 50 m S; Longitude: 030 deg 33 m E. Collected May 19, 1982. Farmstore, 19km S of St. Joseph Mission, Midlands Province. 1100m. Sown October. Local name Ciburandaya. Cultivated. Seed.
482116. TGR 776. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N

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- of All Saints School, Midlands Province. 1490m. Sown November. Local name Chimandara. Cultivated. Seed.
482117. TGR 779. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore 1 km N of all Saints School, Midlands Province. 1490m. Sown November. Local name Kasawaya. Cultivated. Seed.
482118. TGR 788. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 9km W of Sadza, Midlands Province. 1420m. Local name Chidonono. Cultivated. Seed.
482119. TGR 789. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 9km W of Sadza BC, Midlands Province. 1420m. Local name Kasawaya. Cultivated. Seed.
482120. TGR 790. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 27 m E. Collected May 20, 1982. Farmstore, Sadza BC, Midlands Province. 1340m. Sown November, harvested May. Local name Kaboko. Cultivated. Seed.
482121. TGR 796. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Local name Cibhurandaya. Cultivated. Seed.
482122. TGR 803. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Sown November. Local name Chichena. Cultivated. Seed.
482123. TGR 804. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Sown November. Red and white specks on seed. Cultivated. Seed.
482124. TGR 805. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Local name Kaboko. Cultivated. Seed.
482125. TGR 806. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Sown November. Local name Mutonono. Cultivated. Seed.
482126. TGR 810. Zimbabwe. Seed.
482127. TGR 814. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Local name Kasawaya. Cultivated.

482060 TO 482242-continued  
Seed.

482128. TGR 816. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Local name Kaboko. Cultivated. Seed.
482129. TGR 821. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Local name Mutonono. Cultivated. Seed.
482130. TGR 822. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Local name Kaboko. Cultivated. Seed.
482131. TGR 823. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Seeds red and white striped. Cultivated. Seed.
482132. TGR 827. Zimbabwe. Latitude: 15 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 3km E of Sadza, Midlands Province. 1420m. Local name Kasawaya. Cultivated. Seed.
482133. TGR 828. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 3km E of Sadza, Midlands Province. 1420m. Local name Chiswina. Cultivated. Seed.
482134. TGR 847. Zimbabwe. Latitude: 18 deg 15 m S; Longitude: 028 deg 24 m E. Collected May 21, 1982. Farmstore, 35km W of Gokwe Do, Midlands Province. 1100m. Sown December, harvested April. Local name Chisawaira. Cultivated. Seed.
482135. TGR 862. Zimbabwe. Latitude: 18 deg 10 m S; Longitude: 028 deg 34 m E. Collected May 22, 1982. Farmstore, 10km W of Manyoni BC, Midlands Province. 1100m. Sown November, harvested April. Local name Cibrandaya. Cultivated. Seed.
482136. TGR 872. Zimbabwe. Latitude: 18 deg 07 m S; Longitude: 028 deg 31 m E. Collected May 22, 1982. Farmstore, 19km W of Manyoni BC, Midlands Province. 1100m. Sown November. Local name Kasawaya. Cultivated. Seed.
482137. TGR 874. Zimbabwe. Latitude: 18 deg 07 m S; Longitude: 028 deg 31 m E. Collected May 22, 1982. Farmstore, 19km W of Manyoni BC, Midlands Province. 1100m. Sown November, harvested April. Local name Chimhandara. Cultivated. Seed.
482138. TGR 879. Zimbabwe. Latitude: 18 deg 12 m S; Longitude:

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- 028 deg 36 m E. Collected May 22, 1982. Farmstore, 4km S of Manyoni BC, Midlands Province. 1180m. Sown November. Cultivated. Seed.
482139. TGR 883. Zimbabwe. Latitude: 18 deg 08 m S; Longitude: 028 deg 39 m E. Collected May 22, 1982. Farmstore, 14km W of Manyoni BC, Midlands Province. 1120m. Sown November, harvested April. Local name Sawaira. Cultivated. Seed.
482140. TGR 887. Zimbabwe. Latitude: 19 deg 21 m S; Longitude: 029 deg 33 m E. Collected May 24, 1982. Farmstore, 3km E of Mkoba BC, Midlands Province. 1300m. Sown November. Local name Chibrandaya. Cultivated. Seed.
482141. TGR 895. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Farmstore, 13km NW of Mkoba BC, Midlands Province. 1300m. Sown October, harvested April. Local name Cibrandaya. Cultivated. Seed.
482142. TGR 918. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 18 m E. Collected May 24, 1982. Farmstore, 29km NW of Mkoba BC, Midlands Province. 1300m. Sown November, harvested April. Local name Cibrandaya. Cultivated. Seed.
482143. TGR 932. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 4km E of Sadza BC, Midlands Province. 1420m. Local name Chizedzuru. Cultivated. Seed.
482144. TGR 933. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 4km E of Sadza, Midlands Province. 1420m. Local name Chivende. Cultivated. Seed.
482145. TGR 935. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 4km E of Sadza, Midlands Province. 1420m. Local name Raboko. Cultivated. Seed.
482146. TGR 936. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 4km E of Sadza, Midlands Province. 1420m. Local name Chisvina. Cultivated. Seed.
482147. TGR 944. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 2km E of Sadza, Midlands Province. 1420m. Local name Kaboko. Cultivated. Seed.
482148. TGR 945. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 2km E of Sadza, Midlands Province. 1420m. Seeds large, red. Local name Turuhru. Cultivated. Seed.

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482149. TGR 946. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 2km E of Sadza, Midlands Province. 1420m. Local name Chimandara. Cultivated. Seed.
482150. TGR 947. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 2km E of Sadza, Midlands Province. 1420m. Local name Mutonono. Cultivated. Seed.
482151. TGR 950. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 5km N of Sadza, Midlands Province. 1420m. Local name Chisvina. Cultivated. Seed.
482152. TGR 952. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 7km N of Sadza, Midlands Province. 1420m. Local name Mutonono. Cultivated. Seed.
482153. TGR 956. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 3km NE of Sadza, Midlands Province. 1420m. Local name Chimandara. Cultivated. Seed.
482154. TGR 959. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 3km NE of Sadza, Midlands Province. 1420m. Local name Kasawaya. Cultivated. Seed.
482155. TGR 960. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 3km NE of Sadza, Midlands Province. 1420m. Local name Mutonono. Cultivated. Seed.
482156. TGR 964. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 2km NW of Sadza, Midlands Province. 1420m. Local name Kapoko. Cultivated. Seed.
482157. TGR 965. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 2km NW of Sadza, Midlands Province. 1420m. Local name Turuhuril (big red). Cultivated. Seed.
482158. TGR 969. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 2km NW of Sadza, Midlands Province. 1420m. Local name Chisuina. Cultivated. Seed.
482159. TGR 976. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza,

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- Midlands Province. 1420m. Local name Chivende. Cultivated. Seed.
482160. TGR 981. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 4km from Sadza, Midlands Province. 1420m. Local name Kopoko. Cultivated. Seed.
482161. TGR 985. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 8km NE of Sadza, Midlands Province. 1420m. Local name Cibrandai. Cultivated. Seed.
482162. TGR 986. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 8km NE of Sadza, Midlands Province. 1420m. Local name Mutonono. Cultivated. Seed.
482163. TGR 996. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km from Mupatsi, Midlands Province. 1200m. Cultivated. Seed.
482164. TGR 997. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km from Mupatsi, Midlands Province. 1200m. Seeds red with white markings. Cultivated. Seed.
482165. TGR 1000. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Mutonono. Cultivated. Seed.
482166. TGR 1003. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Mutokomesi. Cultivated. Seed.
482167. TGR 1004. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Chiburandaya. Cultivated. Seed.
482168. TGR 1010. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Mutonono. Cultivated. Seed.
482169. TGR 1014. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Chisvina. Cultivated. Seed.
482170. TGR 1015. Zimbabwe. Latitude: 19 deg 02 m S; Longitude:

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- 031 deg 28 m E. Collected May 20, 1982. Farnstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Kasawaya. Cultivated. Seed.
482171. TGR 1019. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farnstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Kasawairc. Cultivated. Seed.
482172. TGR 1027. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farnstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Chisvina. Cultivated. Seed.
482173. TGR 1029. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farnstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Chimondora. Cultivated. Seed.
482174. TGR 1035. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farnstore, 5km from Mupatsi, Midlands Province. 1200m. Cultivated. Seed.
482175. TGR 1043. Zimbabwe. Latitude: 19 deg 43 m S; Longitude: 030 deg 10 m E. Collected May 26, 1982. Farnstore, 3km N of Donga, Midlands Province. 1250m. Sown October. Local name Chikanja. Cultivated. Seed.
482176. TGR 1048. Zimbabwe. Latitude: 19 deg 43 m S; Longitude: 030 deg 10 m E. Collected May 26, 1982. Farnstore, 3km N of Donga, Midlands Province. 1250m. Sown October, harvested April. Local name Mutatu. Cultivated. Seed.
482177. TGR 1064. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. Farnstore, 36km NE of Donga, Midlands Province. 1200m. Local name Chikongwane. Cultivated. Seed.
482178. TGR 1068. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. Farnstore, 36km NE of Donga, Midlands Province. 1200m. Local name Chidanja. Cultivated. Seed.
482179. TGR 1075. Zimbabwe. Latitude: 19 deg 44 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. From Manke EC, 19km SE, Midlands Province. 1200m. Local name Chidanja. Cultivated. Seed.
482180. TGR 1079. Zimbabwe. Latitude: 19 deg 44 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. From Manke EC, 19km SE, Midlands Province. 1200m. Local name Chimardara. Cultivated. Seed.



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482181. TGR 1089. Zimbabwe. Latitude: 19 deg 50 m S; Longitude: 030 deg 13 m E. Collected May 26, 1982. Farmstore, 14km SE of Donga, Midlands Province. 1200m. Local name Cibrandyi. Cultivated. Seed.
482182. TGR 1113. Zimbabwe. Latitude: 20 deg 42 m S; Longitude: 030 deg 21 m E. Collected May 26, 1982. South 11km from Masvingo, Midlands Province. 850m. Local name Cibrandai. Cultivated. Seed.
482183. TGR 1139. Zimbabwe. Latitude: 20 deg 44 m S; Longitude: 030 deg 12 m E. Collected May 27, 1982. Farmstore, Maranda BC, Midlands Province. 850m. Could be Spanish bunch type. Local name Chidonge. Cultivated. Seed.
482184. TGR 1150. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 030 deg 17 m E. Collected May 28, 1982. Farmstore, 7km N of Zurubi, Midlands Province. 850m. Improved type. Cultivated. Seed.
482185. TGR 1179. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farmstore, 2km E of Tsanzaguru BC, Manicaland. 1320m. Sown October, harvested May. Cultivated. Seed.
482186. TGR 1188. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farmstore, 2km E of Tsanzaguru BC, Manicaland. 1320m. Sown October, harvested March. Local name Kasawaya. Cultivated. Seed.
482187. TGR 1205. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farmstore, 2km E of Tsanzaguru BC, Manicaland Province. 1320m. Sown November. Local cultivar. Upright, spreading type. Cultivated. Seed.
482188. TGR 1241. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 4km E of Nyatate BC, Manicaland Province. 1190m. Sown October. Cultivated. Seed.
482189. TGR 1245. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 4km E of Nyatate BC, Manicaland Province. 1190m. Local name Kasawaira. Cultivated. Seed.
482190. TGR 1273. Zimbabwe. Latitude: 17 deg 47 m S; Longitude: 032 deg 59 m E. Collected June 03, 1982. Farmstore, 1 km E of Nyanghomre BC, Manicaland Province. 800m. Sown November, harvested April. Local name Zandanga. Cultivated. Seed.

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482191. TGR 1284. Zimbabwe. Latitude: 17 deg 54 m S; Longitude: 032 deg 52 m E. Collected June 03, 1982. Farmstore, at Kute School, Manicaland. 900m. Sown November, harvested April. Local name Dambarare. Cultivated. Seed.
482192. TGR 1335. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Sown November. Local name Chindau. Cultivated. Seed.
482193. TGR 1360. Zimbabwe. Latitude: 18 deg 31 m S; Longitude: 032 deg 44 m E. Collected June 07, 1982. Farmstore, 2km W of Gatsi BC, Manicaland Province. 820m. Sown November. Local name Kasawaira. Cultivated. Seed.
482194. TGR 1382. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 48 m E. Collected June 07, 1982. Farmstore, Mparutsa BC, Manicaland Province. 800m. Sown November. Local name Zuiganhira. Cultivated. Seed.
482195. TGR 1387. Zimbabwe. Latitude: 18 deg 23 m S; Longitude: 032 deg 50 m E. Collected June 07, 1982. Farmstore, Rumbizi EC, Manicaland Province. 750m. Sown November. Local name Kasawaira. Cultivated. Seed.
482196. TGR 1400. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 58 m E. Collected June 08, 1982. Farmstore, Mandeya EC, Manicaland Province. 750m. Sown November. Local name Kasawaira. Cultivated. Seed.
482197. TGR 1404. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 58 m E. Collected June 08, 1982. Farmstore, 10km E of Mandeya BC, Manicaland Province. 750m. Sown November. Local name Kasawira. Cultivated. Seed.
482198. TGR 1434. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Sown November. Cultivated. Seed.
482199. TGR 1449. Zimbabwe. Latitude: 20 deg 53 m S; Longitude: 032 deg 17 m E. Collected June 09, 1982. Farmstore, 4km W of Chinyamwakwa BC, Manicaland Province. 390m. Sown November. Local name Manduni. Cultivated. Seed.
482200. TGR 1493. Zimbabwe. Latitude: 17 deg 45 m S; Longitude: 029 deg 43 m E. Collected June 15, 1982. Farmstore, NE of St. Rupert Mission, Mashonaland Province. 900m. Sown November, harvested April. Used for salting and roasting. Local name Katunge. Cultivated. Seed.
482201. TGR 1494. Zimbabwe. Latitude: 17 deg 45 m S; Longitude:

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- 029 deg 43 m E. Collected June 15, 1982. Farmstore, NE of St. Rupert Mission, Mashonaland Province. 900m. Sown November, harvested April. Seeds oily. Used for peanut butter. Local name Kasawairia. Cultivated. Seed.
482202. TGR 1558. Zimbabwe. Latitude: 17 deg 37 m S; Longitude: 030 deg 11 m E. Collected June 18, 1982. Farmstore, 15km N of Murdmbedzi BC, Mashonaland Province. 1200m. Sown November, harvested April. Local name Tombe. Cultivated. Seed.
482203. TGR 1559. Zimbabwe. Latitude: 17 deg 37 m S; Longitude: 030 deg 11 m E. Collected June 18, 1982. Farmstore, 15km N of Murdmbedzi BC, Mashonaland Province. 1200m. Sown November, harvested April. Local name Kasawaira Kutsuku. Cultivated. Seed.
482204. TGR 1560. Zimbabwe. Latitude: 17 deg 37 m S; Longitude: 030 deg 11 m E. Collected June 18, 1982. Farmstore, 15km N of Murdmbedzi BC, Mashonaland Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482205. TGR 1570. Zimbabwe. Latitude: 17 deg 39 m S; Longitude: 030 deg 05 m E. Collected June 18, 1982. Farmstore, 2km E of Chivere BC, Mashonaland Province. 1100m. Sown November, harvested April. Introduced in 1981. Seeds very oily. Cultivated. Seed.
482206. TGR 1579. Zimbabwe. Latitude: 17 deg 43 m S; Longitude: 030 deg 07 m E. Collected June 18, 1982. Farmstore, Murindagcni BC, Mashonaland West Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482207. TGR 1583. Zimbabwe. Latitude: 17 deg 39 m S; Longitude: 030 deg 15 m E. Collected June 18, 1982. Farmstore, Murobedzi BC, Mashonaland West Province. 1300m. Sown November, harvested April. Local name Tumbe. Cultivated. Seed.
482208. TGR 1586. Zimbabwe. Latitude: 17 deg 39 m S; Longitude: 030 deg 17 m E. Collected June 18, 1982. Farmstore, 1 km W of Zinate BC, Mashonaland West Province. 1280m. Sown November, harvested April. Local name Tumbe. Cultivated. Seed.
482209. TGR 1591. Zimbabwe. Latitude: 17 deg 48 m S; Longitude: 030 deg 19 m E. Collected June 18, 1982. Farmstore, 2km E of Masiyarna BC, Mashonaland West Province. 1350m. Sown November, harvested April. Local name Chimhandara. Cultivated. Seed.
482210. TGR 1596. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 030 deg 17 m E. Collected June 18, 1982. Farmstore, 2km E

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- of Madzika BC, Mashonaland West Province. 1300m. Sown November, harvested April. Local name Tumbe. Cultivated. Seed.
482211. TGR 1597. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 030 deg 17 m E. Collected June 18, 1982. Farmstore, 2km E of Madzima BC, Mashonaland West Province. 1300m. Sown November, harvested April. Cultivated. Seed.
482212. TGR 1613. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 030 deg 17 m E. Collected June 18, 1982. Farmstore, Madzima EC, Mashonaland West Province. 1300m. Sown November, harvested April. Cultivated. Seed.
482213. TGR 1637. Zimbabwe. Latitude: 16 deg 47 m S; Longitude: 029 deg 25 m E. Collected June 21, 1982. Farmstore, N of Magunje EC, Mashonaland West Province. 1180m. Local name Kasawairia. Cultivated. Seed.
482214. TGR 1656. Zimbabwe. Latitude: 16 deg 59 m S; Longitude: 029 deg 27 m E. Collected June 22, 1982. Farmstore, 2km N of Samurino township, Mashonaland West Province. 1200m. Sown November, harvested April. Local name Kasawaira. Cultivated. Seed.
482215. TGR 1685. Zimbabwe. Latitude: 17 deg 11 m S; Longitude: 029 deg 21 m E. Collected June 22, 1982. Farmstore, Chief Mujinga, Mashonaland West Province. 1080m. Sown November, harvested April. Local name Chihwenga. Cultivated. Seed.
482216. TGR 1689. Zimbabwe. Latitude: 17 deg 10 m S; Longitude: 029 deg 29 m E. Collected June 22, 1982. Farmstore, 3km E of Chimusimbe BC, Mashonaland West Province. 1100m. Sown November, harvested April. Local name Kasawaira. Cultivated. Seed.
482217. TGR 1719. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 39 m E. Collected June 23, 1982. Farmstore, 14km E of Chitake River Bridge, Mashonaland West Province. 1100m. Sown November, harvested April. Local name Kasawaira. Cultivated. Seed.
482218. TGR 1724. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 41 m E. Collected June 23, 1982. Farmstore, 17km E of Chitake River Bridge, Mashonaland West Province. 1100m. Sown November, harvested April. Local name Kasawaira. Cultivated. Seed.
482219. TGR 1728. Zimbabwe. Latitude: 16 deg 22 m S; Longitude: 029 deg 45 m E. Collected June 23, 1982. Farmstore, E of Chitake River Bridge, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.

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482220. TGR 1740. Zimbabwe. Latitude: 16 deg 27 m S; Longitude: 029 deg 37 m E. Collected June 23, 1982. Farmstore, 4km W of Mhondiwa BC, Mashonaland West Province. 1200m. Sown November, harvested April. Local name Kasawairia. Cultivated. Seed.
482221. TGR 1747. Zimbabwe. Latitude: 16 deg 36 m S; Longitude: 029 deg 46 m E. Collected June 24, 1982. Farmstore, 11km W of Kadlinga BC, Mashonaland West Province. 1200m. Sown November, harvested April. Local name Kasawairia. Cultivated. Seed.
482222. TGR 1760. Zimbabwe. Latitude: 16 deg 29 m S; Longitude: 029 deg 53 m E. Collected June 24, 1982. Farmstore, 14km N of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Seeds red and white speckled. Cultivated. Seed.
482223. TGR 1778. Zimbabwe. Latitude: 16 deg 38 m S; Longitude: 029 deg 54 m E. Collected June 24, 1982. Farmstore, 15km SE of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Local name Kasawairia. Cultivated. Seed.
482224. TGR 1786. Zimbabwe. Latitude: 16 deg 36 m S; Longitude: 029 deg 56 m E. Collected June 24, 1982. Farmstore, 20km E of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482225. TGR 1799. Zimbabwe. Latitude: 16 deg 40 m S; Longitude: 029 deg 49 m E. Collected June 24, 1982. Farmstore, 7km E of Miana BC, Mashonaland West Province. 1200m. Sown November, harvested April. Local name Kasawairia. Cultivated. Seed.
482226. TGR 1803. Zimbabwe. Latitude: 17 deg 24 m S; Longitude: 032 deg 12 m E. Collected June 29, 1982. Farmstore, 19km W of Manhewa BC, Mashonaland Central Province. 1150m. Sown November, harvested April. Local name Kaboko. Cultivated. Seed.
482227. TGR 1804. Zimbabwe. Latitude: 17 deg 24 m S; Longitude: 032 deg 12 m E. Collected June 29, 1982. Farmstore, 19km W of Manhewa BC, Mashonaland Central Province. 1150m. Sown November, harvested April. Local name Tumbe (upright). Cultivated. Seed.
482228. TGR 1809. Zimbabwe. Latitude: 17 deg 26 m S; Longitude: 031 deg 14 m E. Collected June 29, 1982. Farmstore, 14km W of Manhenga BC, Mashonaland Central Province. 1350m. Sown November. Local name Tumbe. Cultivated. Seed.

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482229. TGR 1812. Zimbabwe. Latitude: 17 deg 23 m S; Longitude: 031 deg 20 m E. Collected June 29, 1982. Farmstore, 2km E of Manhenga BC, Mashonaland Central Province. 1150m. Sown November, harvested April. Local name Kasawairia. Cultivated. Seed.
482230. TGR 1829. Zimbabwe. Latitude: 17 deg 32 m S; Longitude: 031 deg 27 m E. Collected June 29, 1982. Farmstore, 9km E of Nyava BC, Mashonaland Central Province. 1300m. Sown November, harvested April. Local name Murambatsvina. Cultivated. Seed.
482231. TGR 1832. Zimbabwe. Latitude: 17 deg 32 m S; Longitude: 031 deg 27 m E. Collected June 29, 1982. Farmstore, 9km E of Nyava BC, Mashonaland Central Province. 1300m. Sown November, harvested April. Local name Kasawaira. Cultivated. Seed.
482232. TGR 1868. Zimbabwe. Latitude: 16 deg 58 m S; Longitude: 031 deg 27 m E. Collected June 30, 1982. Farmstore, 21km S of Chief Madziwa, Mashonaland Central Province. 1120m. Sown November, harvested April. Local name Madhuve. Cultivated. Seed.
482233. TGR 1902. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 032 deg 26 m E. Collected July 01, 1982. Farmstore, 8km E of Mary Mount Mission, Mashonaland Central Province. 650m. Sown November, harvested April. Cultivated. Seed.
482234. TGR 1952. Zimbabwe. Latitude: 16 deg 32 m S; Longitude: 031 deg 46 m E. Collected July 03, 1982. Farmstore, Chitsato School, Mashonaland Central Province. 800m. Cultivated. Seed.
482235. TGR 1961. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 42 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 980m. Sown November, harvested April. Local name Mutanga. Cultivated. Seed.
482236. TGR 1969. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Sown November, harvested April. Cultivated. Seed.
482237. TGR 1970. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Sown November, harvested April. Local name Kasawayra. Cultivated. Seed.
482238. TGR 1998. Zimbabwe. Latitude: 16 deg 31 m S; Longitude:

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031 deg 28 m E. Collected July 04, 1982. Farmstore, 14km W of Dotito BC, Mashonaland Central Province. 1120m. Sown November, harvested April. Local name Kasawira. Cultivated. Seed.

482239. TGR 2014. Zimbabwe. Latitude: 16 deg 18 m S; Longitude: 031 deg 05 m E. Collected July 06, 1982. Farmstore, 25km NE of Mzarabani Estate, Mashonaland and Central Province. 400m. Sown December, harvested April. Local name Kaboko. Cultivated. Seed.

482240. TGR 2037. Zimbabwe. Latitude: 16 deg 16 m S; Longitude: 030 deg 28 m E. Collected July 07, 1982. Farmstore, E of Chitsungo Mission, Mashonaland Central Province. 400m. Sown December, harvested April. Cultivated. Seed.

482241. TGR 2057. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 030 deg 45 m E. Collected July 08, 1982. Farmstore 4km S of Sipololo, Mashonaland Central Province. 1250m. Sown November, harvested April. Cultivated. Seed.

482242. TGR 2064. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 030 deg 46 m E. Collected July 06, 1982. Farmstore, 9km S of Sipololo, Mashonaland Central Province. 1300m. Sown November, harvested April. Local name Chimandara. Cultivated. Seed.

482243 TO 482245. *Celosia trigyna* L. (Amaranthaceae).

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482243. TGR 91. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 039 deg 25 m E. Collected April 15, 1982. Maize field, 36km NE of Gutu Do, Gutu District, Victoria Province. 1100m. Wild. Seed.

482244. TGR 262. Zimbabwe. Latitude: 20 deg 31 m S; Longitude: 031 deg 31 m E. Collected April 23, 1982. South east, 36km from Zaka, Victoria Province. 570m. Leaves eaten. Wild. Seed.

482245. TGR 549. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Backyard, 1.7km W of Mhedziwa BC, Manicaland Province. 1030m. Inflorescence white, sparse. Leaves eaten as vegetables. Wild/Weedy. Seed.

482246 TO 482381. *Citrullus lanatus* (Thunb.) Matsum. & Nakai  
(Cucurbitaceae) Watermelon.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR;  
Research and Specialist Services; Rome, Italy; Causeway,  
Zimbabwe. Received through International Board for Plant  
Genetic Resources (IBPGR), Rome, Italy.  
Received January 1983.

482246. TGR 40. Zimbabwe. Latitude: 20 deg 23 m S; Longitude:  
030 deg 40 m E. Collected April 14, 1982. Farmland, 19km  
E of Chiri, Chibi District, Victoria Province. Sown  
November, harvested April. Flesh cooked and eaten. Local  
name Shamba. Cultivated. Seed.
482247. TGR 41. Zimbabwe. Latitude: 20 deg 23 m S; Longitude:  
030 deg 40 m E. Collected April 14, 1982. Farmland, 19km  
E of Chiri, Chibi District, Victoria Province. 750m. Sown  
November, harvested April. Flesh red, and sweet.  
Cultivated. Seed.
482248. TGF 56. Zimbabwe. Latitude: 20 deg 12 m S; Longitude:  
030 deg 26 m E. Collected April 14, 1982. Farmstore, 9km  
N of Chiri Do, Chibi District, Victoria Province. 950m.  
Sown November, harvested March. Flesh, white, sweet.  
Seeds orange. Cultivated. Seed.
482249. TGR 57. Zimbabwe. Latitude: 20 deg 12 m S; Longitude:  
030 deg 26 m E. Collected April 14, 1982. Farmstore, 9km  
N of Chiri Do, Chibi District, Victoria Province. 950m.  
Sown November, harvested March. Flesh red, sweet.  
Cultivated. Seed.
482250. TGR 58. Zimbabwe. Latitude: 20 deg 12 m S; Longitude:  
030 deg 26 m E. Collected April 14, 1982. Farmstore, 9km  
N of Chiri Do, Chibi District, Victoria Province. 950m.  
Sown November, harvested March. Flesh red, sweet. Seeds  
brown. Cultivated. Seed.
482251. TGR 59. Zimbabwe. Latitude: 20 deg 12 m S; Longitude:  
030 deg 26 m E. Collected April 14, 1982. Farmstore, 9km  
N of Chiri Do, Chibi District, Victoria Province. 950m.  
Flesh red, sweet. Seeds light brown. Cultivated. Seed.
482252. TGR 98. Zimbabwe. Latitude: 19 deg 32 m S; Longitude:  
031 deg 25 m E. Collected April 15, 1982. Farmland, 37km  
NE of Gutu Do, Gutu District, Victoria Province. 1150m.  
Sown October, harvested April. Flesh yellow. Seeds orange  
with yellow border. Cultivated. Seed.
482253. TGR 102. Zimbabwe. Latitude: 19 deg 32 m S; Longitude:  
031 deg 25 m E. Collected April 15, 1982. Farmland, 37km  
NE of Gutu Do, Gutu District, Victoria Province. 1150m.  
Sown October, harvested April. Flesh sweet. Seeds red.



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Cultivated. Seed.

482254. TGR 112. Zimbabwe. Latitude: 19 deg 36 m S; Longitude: 031 deg 20 m E. Collected April 15, 1982. Farmland, 50km E of Gutu Do, Gutu District, Victoria Province. 1100m. Fruit skin green mottled. Flesh sweet. Seeds black. Cultivated. Seed.
482255. TGR 130. Zimbabwe. Latitude: 20 deg S; Longitude: 031 deg 50 m E. Collected April 16, 1982. Farmstore, 42km E of Bikita Do, Bikita, District, Victoria Province. 900m. Sown November. Flesh sweet. Cultivated. Seed.
482256. TGR 143. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 44 m E. Collected April 17, 1982. Farmland, 1 km SW of Magaisa, Bikita District, Victoria Province. 660m. Sown December, harvested April. Flesh red, sweet. Seeds white. Cultivated. Seed.
482257. TGR 173. Zimbabwe. Latitude: 20 deg 15 m S; Longitude: 031 deg 03 m E. Collected April 19, 1982. Maize field, 3km E of Mashenjere near Kyle Dam Wall, Victoria Province. 1100m. Sown November, harvested April. Flesh bitter. Cultivated. Seed.
482258. TGR 179. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 04 m E. Collected April 19, 1982. Farmstore, 25km SE of Dombu Dema near Kyle Dam Wall, Victoria Province. 800m. Sown October, harvested April. Flesh sweet. Cultivated. Seed.
482259. TGR 183. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 04 m E. Collected April 19, 1982. Farmstore, 25km SE of Dombu Dema near Kyle Dam Wall, Victoria Province. 800m. Sown October, harvested April. Flesh bitter, yellow. Seeds red. Cultivated. Seed.
482260. TGR 203. Zimbabwe. Latitude: 20 deg 54 m S; Longitude: 030 deg 45 m E. Collected April 20, 1982. Farmstore, 5km S of Lundi Bridge, Nuanetsi District, Victoria Province. 565m. Sown October, harvested April. Flesh sweet. Cultivated. Seed.
482261. TGR 204. Zimbabwe. Latitude: 20 deg 54 m S; Longitude: 030 deg 45 m E. Collected April 20, 1982. Farmstore, 5km S of Lundi Bridge, Nuanetsi District, Victoria Province. 565m. Sown October, harvested April. Flesh bitter, cooked, and fed to cattle. Cultivated. Seed.
482262. TGR 219. Zimbabwe. Latitude: 21 deg 13 m S; Longitude: 030 deg 21 m E. Collected April 20, 1982. Farmstore, 65km S of Neshuro, Nuanetsi District, Victoria, Province. 650m. Sown November. Cultivated. Seed.

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482263. TGR 246. Zimbabwe. Latitude: 22 deg 50 m S; Longitude: 031 deg 12 m E. Collected April 22, 1982. Farmstore, 25km N of Malipati BC, Chiredze District, Victoria Province. 340m. Sown November, harvested April. Flesh sweet. Cultivated. Seed.
482264. TGR 256. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 031 deg 30 m E. Collected April 23, 1982. Farmstore, 15km SW of Zaka, Ndanga District, Victoria Province. 660m. Sown November. Flesh sweet. Cultivated. Seed.
482265. TGR 273. Zimbabwe. Latitude: 20 deg 33 m S; Longitude: 030 deg 42 m E. Collected April 26, 1982. Farmland, 13km S of Turgwana Bridge, Victoria Province. 760m. Flesh bitter, cooked, and eaten, also fed to animals. Cultivated. Seed.
482266. TGR 274. Zimbabwe. Latitude: 20 deg 33 m S; Longitude: 030 deg 42 m E. Collected April 26, 1982. Farmland, 13km S of Turgwana Bridge, Victoria Province. 760m. Flesh sweet. Cultivated. Seed.
482267. TGR 275. Zimbabwe. Latitude: 20 deg 33 m S; Longitude: 030 deg 42 m E. Collected April 26, 1982. Farmland, 13km S of Turgwana Bridge, Victoria Province. 760m. Flesh sweet. Cultivated. Seed.
482268. TGR 299. Zimbabwe. Latitude: 19 deg 53 m S; Longitude: 030 deg 51 m E. Collected April 29, 1982. Farmland, 23km N of Fort Victoria, Bikita District, Victoria Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482269. TGR 308. Zimbabwe. Latitude: 19 deg 48 m S; Longitude: 030 deg 51 m E. Collected April 29, 1982. Farmland, 30km N of Fort Victoria, Victoria Province. 1240m. Sown November, harvested April. Flesh red, sweet. Seeds brown. Cultivated. Seed.
482270. TGR 309. Zimbabwe. Latitude: 19 deg 48 m S; Longitude: 030 deg 51 m E. Collected April 29, 1982. Farmland, 30km N of Fort Victoria, Victoria Province. 1240m. Sown November, harvested April. Flesh red, sweet. Seeds brown. Cultivated. Seed.
482271. TGR 310. Zimbabwe. Latitude: 19 deg 48 m S; Longitude: 030 deg 51 m E. Collected April 29, 1982. Farmland, 30km N of Fort Victoria, Victoria Province. 1240m. Sown November, harvested April. Flesh pink, sweet. Seeds brown and black. Cultivated. Seed.
482272. TGR 326. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 27 m E. Collected April 30, 1982. Farmstore, 7km

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- S of Zaka, Victoria Province. 680m. Cultivated. Seed.
482273. TGR 345. Zimbabwe. Latitude: 20 deg 27 m S; Longitude: 031 deg 20 m E. Collected April 30, 1982. Farmstore, 23km SW of Zaka, Victoria Province. 720m. Flesh bitter. Seeds red. Cultivated. Seed.
482274. TGR 346. Zimbabwe. Latitude: 20 deg 27 m S; Longitude: 031 deg 20 m E. Collected April 30, 1982. Farmstore, 23km SW of Zaka, Victoria Province. 720m. Flesh red, sweet. Seeds white. Cultivated. Seed.
482275. TGR 347. Zimbabwe. Latitude: 20 deg 27 m S; Longitude: 031 deg 20 m E. Collected April 30, 1982. Farmstore, 23km SW of Zaka, Victoria Province. 720m. Flesh white, sweet. Seeds black. Cultivated. Seed.
482276. TGR 348. Zimbabwe. Latitude: 20 deg 27 m S; Longitude: 031 deg 20 m E. Collected April 30, 1982. Farmstore, 23km SW of Zaka, Victoria Province. 720m. Fruits small, dark green. Flesh bitter, cooked to sugar. Cultivated. Seed.
482277. TGR 349. Zimbabwe. Latitude: 20 deg 27 m S; Longitude: 031 deg 20 m E. Collected April 30, 1982. Farmstore, 23km SW of Zaka, Victoria Province. 720m. Skin with yellow blotches, light green. Flesh bitter. Cultivated. Seed.
482278. TGR 360. Zimbabwe. Latitude: 20 deg 19 m S; Longitude: 031 deg 26 m E. Collected April 30, 1982. Farmstore, 6.5km N of Zaka, Victoria Province. 850m. Cultivated. Seed.
482279. TGR 481. Zimbabwe. Collected May 01, 1982. Bulowayo show, N from Bucanayo, Matebeleland North Province. Flesh bitter, yellow. Seeds brown. Cultivated. Seed.
482280. TGR 483. Zimbabwe. Collected May 01, 1982. Near Tsholotsho, Matebeleland West Province. Flesh sweet, red. Cultivated. Seed.
482281. TGR 560. Zimbabwe. Latitude: 19 deg 47 m S; Longitude: 032 deg 25 m E. Collected May 07, 1982. Village market, 27km S of Wengezi Junction, Manicaland Province. 500m. Flesh sweet, white. Seeds black. Originally from Gudyanja. Cultivated. Seed.
482282. TGR 620. Zimbabwe. Latitude: 20 deg 21 m S; Longitude: 032 deg 45 m E. Collected May 10, 1982. Farmland, 13.4km SW of Tamandayi BC, Manicaland Province. 1200m. Sown November. Flesh bitter, cooked and fed to animals. Cultivated. Seed.
482283. TGR 649. Zimbabwe. Latitude: 20 deg 26 m S; Longitude:

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- 032 deg 45 m E. Collected May 11, 1982. Backyard, 8.3km S of Mt. Selinda Mission, Manicaland Province. 860m. Flesh bitter, cooked. Also fed to animals. Cultivated. Seed.
482284. TGR 660. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 029 deg 07 m E. Collected May 17, 1982. Farnstore, 24km W of Crossroads, Midlands Province. 1100m. Sown November, harvested April. Flesh sweet, red. Aged seed dark, light brown. Cultivated. Seed.
482285. TGR 666. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 029 deg 27 m E. Collected May 17, 1982. Farnstore, 25km W of Crossroads, Midlands Province. 1000m. Sown November. Flesh sweet, red. Cultivated. Seed.
482286. TGR 667. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 029 deg 07 m E. Collected May 17, 1982. Farnstore, 25km W of Crossroads, Midlands Province. 1000m. Sown November. Flesh bitter, yellow. Cultivated. Seed.
482287. TGR 678. Zimbabwe. Latitude: 18 deg 50 m S; Longitude: 029 deg 03 m E. Collected May 17, 1982. Farnstore, 32.6km W of Crossroads, Midlands Province. 1000m. Sown November. Flesh red, sweet. Cultivated. Seed.
482288. TGR 679. Zimbabwe. Latitude: 18 deg 50 m S; Longitude: 029 deg 03 m E. Collected May 17, 1982. Farnstore, 32.6km W of Crossroads, Midlands Province. 1000m. Sown December. Flesh bitter. Seeds black. Cultivated. Seed.
482289. TGR 680. Zimbabwe. Latitude: 18 deg 50 m S; Longitude: 029 deg 03 m E. Collected May 17, 1982. Farnstore, 32.6km W of Crossroads, Midlands Province. 1000m. Sown November. Fruit long, oval-shaped. Flesh sweet, red. Seeds brown. Cultivated. Seed.
482290. TGR 688. Zimbabwe. Latitude: 18 deg 48 m S; Longitude: 028 deg 58 m E. Collected May 17, 1982. Farnstore, 39km W of Crossroads, Midlands Province. 1000m. Cultivated. Seed.
482291. TGR 695A. Zimbabwe. Latitude: 18 deg 47 m S; Longitude: 029 deg 26 m E. Collected May 18, 1982. Farnstore, 22.6km E of Zhombe BC, Midlands Province. 1150m. Sown November, harvested April. Flesh red, sweet. Seeds black. Cultivated. Seed.
482292. TGR 695B. Zimbabwe. Latitude: 18 deg 47 m S; Longitude: 029 deg 26 m E. Collected May 18, 1982. Farnstore, 22.6km E of Zhombe BC, Midlands Province. 1150m. Sown November, harvested April. Flesh red, sweet. Seeds red. Cultivated. Seed.
482293. TGR 711. Zimbabwe. Latitude: 18 deg 40 m S; Longitude:

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- 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Sown December. Flesh bitter, yellow. Seeds dark red. Cultivated. Seed.
482294. TGR 712A. Zimbabwe. Latitude: 18 deg 40 m S; Longitude: 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Sown December. Seeds black. Cultivated. Seed.
482295. TGR 712B. Zimbabwe. Latitude: 18 deg 40 m S; Longitude: 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Sown December. Seeds white. Cultivated. Seed.
482296. TGR 712C. Zimbabwe. Latitude: 18 deg 40 m S; Longitude: 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Sown December. Seeds yellow. Cultivated. Seed.
482297. TGR 725. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmstore, 28km N of Zhombe BC, Midlands Province. 1080m. Sown December. Rind green-colored. Flesh red, sweet. Seeds black. Cultivated. Seed.
482298. TGR 726. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmstore, 28km N of Zhombe BC, Midlands Province. 1080m. Sown December. Flesh bitter, yellow. Seeds red. Flesh cooked or fed to animals. Cultivated. Seed.
482299. TGR 729. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmstore, 28km N of Zhombe BC, Midlands Province. 1080m. Sown December. Flesh yellow. Seeds dark green and green speckled. Flesh cooked and eaten. Cultivated. Seed.
482300. TGR 741. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September. Flesh bitter, yellow. Seeds red-brown speckled. Cultivated. Seed.
482301. TGR 742. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September. Flesh bitter. Seeds brown speckled. Cultivated. Seed.
482302. TGR 743. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September. Flesh bitter. Seeds red. Cultivated. Seed.

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482303. TGR 744. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September. Flesh bitter. Seeds green. Cultivated. Seed.
482304. TGR 745. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September. Flesh sweet, red. Seeds black. Cultivated. Seed.
482305. TGR 752. Zimbabwe. Latitude: 19 deg 50 m S; Longitude: 030 deg 33 m E. Collected May 19, 1982. Farmstore, 19km S of St. Joseph Mission, Midlands Province. 1100m. Sown November. Flesh sweet, red. Seeds black. Cultivated. Seed.
482306. TGR 770. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N of All Saints School, Midlands Province. 1490m. Sown November. Flesh sweet, red. Seeds black. Cultivated. Seed.
482307. TGR 774. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N of All Saints School, Midlands Province. 1490m. Sown December. Skin striped green. Flesh bitter. Cultivated. Seed.
482308. TGR 775. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N of All Saints School, Midlands Province. 1490m. Sown December. Skin dark green. Flesh bitter. Cultivated. Seed.
482309. TGR 777. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N of All Saints School, Midlands Province. 1490m. Sown November. Flesh bitter. Cultivated. Seed.
482310. TGR 842. Zimbabwe. Latitude: 18 deg 15 m S; Longitude: 028 deg 24 m E. Collected May 21, 1982. Farmstore, 35km W of Gokwe Do, Midlands Province. 1100m. Sown December. Flesh sweet. Cultivated. Seed.
482311. TGR 848. Zimbabwe. Latitude: 18 deg 15 m S; Longitude: 028 deg 24 m E. Collected May 21, 1982. Farmstore, 35km W of Gokwe Do, Midlands Province. 1100m. Sown December. Flesh yellow, bitter. Seeds red. Cultivated. Seed.
482312. TGR 849. Zimbabwe. Latitude: 18 deg 15 m S; Longitude: 028 deg 24 m E. Collected May 21, 1982. Farmstore, 35km W of Gokwe Do, Midlands Province. 1100m. Sown December. Flesh white, bitter. Seeds green. Cultivated. Seed.

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482313. TGR 860. Zimbabwe. Latitude: 18 deg 10 m S; Longitude: 028 deg 34 m E. Collected May 22, 1982. Farmstore, 10km W of Man Yoni BC, Midlands Province. 1100m. Sown November. Flesh sweet, red. Seeds black. Cultivated. Seed.
482314. TGR 870. Zimbabwe. Latitude: 18 deg 07 m S; Longitude: 028 deg 31 m E. Collected May 22, 1982. Farmstore, 19km W of Man Yoni BC, Midlands Province. 1100m. Sown November. Flesh sweet, red. Seeds black speckled. Cultivated. Seed.
482315. TGR 875. Zimbabwe. Latitude: 18 deg 07 m S; Longitude: 028 deg 31 m E. Collected May 22, 1982. Farmstore, 19km W of Man Yoni BC, Midlands Province. 1100m. Sown November. Flesh bitter, yellow. Seeds red. Cultivated. Seed.
482316. TGR 891. Zimbabwe. Latitude: 19 deg 21 m S; Longitude: 029 deg 33 m E. Collected May 24, 1982. Farmstore, 3km E of Mkoba BC, Midlands Province. 1300m. Sown November. Flesh bitter, yellow. Seeds red. Cultivated. Seed.
482317. TGR 892. Zimbabwe. Latitude: 19 deg 21 m S; Longitude: 029 deg 33 m E. Collected May 24, 1982. Farmstore, 3km E of Mkoba BC, Midlands Province. 1300m. Flesh red. sweet. Seeds black. Cultivated. Seed.
482318. TGR 904. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Farmstore, 13km NW of Mkoba BC, Midlands Province. 1300m. Flesh sweet, red. Seeds mixed black, brown, and red. Cultivated. Seed.
482319. TGR 905. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Farmstore, 13km NW of Mkoba BC, Midlands Province. 1300m. Flesh bitter. Mixed seed types. Cultivated. Seed.
482320. TGR 916. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 18 m E. Collected May 24, 1982. Farmstore, 29km NW of Mkoba BC, Midlands Province. 1300m. Flesh sweet. Seeds black. Cultivated. Seed.
482321. TGR 919. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 18 m E. Collected May 24, 1982. Farmstore, 29km NW of Mkoba BC, Midlands Province. 1300m. Flesh bitter, yellow. Seeds green. Cultivated. Seed.
482322. TGR 924. Zimbabwe. Latitude: 19 deg 14 m S; Longitude: 029 deg 58 m E. Collected May 24, 1982. Farmstore, 5km E of Muchakata BC, Midlands Province. 1300m. Flesh bitter. Seeds green. Cultivated. Seed.
482323. TGR 925. Zimbabwe. Latitude: 19 deg 14 m S; Longitude: 029 deg 58 m E. Collected May 24, 1982. Farmstore, 5km E

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- of Muchakata BC, Midlands Province. 1300m. Skin white. Flesh red, sweet. Seeds white. Cultivated. Seed.
482324. TGR 1041. Zimbabwe. Latitude: 19 deg 42 n S; Longitude: 030 deg 10 n E. Collected May 26, 1982. Farmstore, 9km N of Donga, Midlands Province. 1200m. Flesh yellow, bitter. Seeds green. Cultivated. Seed.
482325. TGR 1063. Zimbabwe. Latitude: 19 deg 33 n S; Longitude: 030 deg 16 n E. Collected May 26, 1982. Farmstore, 36km NE of Donga, Midlands Province. 1200m. Flesh red, sweet. Seeds black. Cultivated. Seed.
482326. TGR 1069. Zimbabwe. Latitude: 19 deg 43 n S; Longitude: 030 deg 16 n E. Collected May 26, 1982. Farmstore, 36km NE of Donga, Midlands Province. 1200m. Flesh yellow, bitter. Seeds red. Cultivated. Seed.
482327. TGR 1080. Zimbabwe. Latitude: 19 deg 44 n S; Longitude: 030 deg 16 n E. Collected May 26, 1982. Farmstore, 19km SE of Hanke BC, Midlands Province. 1200m. Flesh red, sweet. Seeds black. Cultivated. Seed.
482328. TGR 1109. Zimbabwe. Latitude: 20 deg 42 n S; Longitude: 030 deg 22 n E. Collected May 27, 1982. Farmstore, 8km SE of Masungu, Midlands Province. 850m. Flesh red, mixed sweet types. Seeds white and black. Cultivated. Seed.
482329. TGR 1134. Zimbabwe. Latitude: 20 deg 51 n S; Longitude: 030 deg 12 n E. Collected May 27, 1982. Farmstore, Mataka, Midlands Province. 760m. Flesh red, sweet. Seeds white. Cultivated. Seed.
482330. TGR 1144. Zimbabwe. Latitude: 20 deg 44 n S; Longitude: 030 deg 12 n E. Collected May 27, 1982. Farmstore, Maranda BC, Midlands Province. 850m. Flesh red, sweet. Seeds white. Cultivated. Seed.
482331. TGR 1145. Zimbabwe. Latitude: 20 deg 44 n S; Longitude: 030 deg 12 n E. Collected May 27, 1982. Farmstore, Maranda BC, Midlands Province. 850m. Flesh bitter. Cultivated. Seed.
482332. TGR 1153. Zimbabwe. Latitude: 20 deg 26 n S; Longitude: 030 deg 17 n E. Collected May 28, 1982. Farmstore, 7km N of Zurubi, Midlands Province. 850m. Flesh red, sweet. Seeds black with white edge. Cultivated. Seed.
482333. TGR 1154. Zimbabwe. Latitude: 20 deg 26 n S; Longitude: 030 deg 17 n E. Collected May 28, 1982. Farmstore, 7km N of Zurubi, Midlands Province. 850m. Flesh bitter, yellow. Seeds red and green mixed. Cultivated. Seed.



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482334. TGR 1168. Zimbabwe. Latitude: 20 deg 05 m S; Longitude: 029 deg 57 m E. Farmstore, 23km N of Shabani, Midlands Province. 1050m. Flesh red, sweet. Seeds brown. Cultivated. Seed.
482335. TGR 1170. Zimbabwe. Latitude: 20 deg 08 m S; Longitude: 029 deg 57 m E. Collected May 28, 1982. Farmstore, 23km N of Shabani, Midlands Province. 1050m. Flesh bitter. Seeds black, green, brown, and white. Cultivated. Seed.
482336. TGR 1185. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farmstore, 2km E of Tsanzaguru BC, Manicaland Province. 1320m. Flesh bitter, yellow. Seeds red. Cultivated. Seed.
482337. TGR 1187. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farmstore, 2km E of Tsanzaguru BC, Manicaland Province. 1320m. Flesh sweet, red. Seeds black. Cultivated. Seed.
482338. TGR 1212. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farmstore, 6km S of Tsanzaguru BC, Manicaland Province. 1320m. Sown October, harvested April. Flesh bitter, yellow. Seeds red. Cultivated. Seed.
482339. TGR 1238. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 4km E of Nyatate BC, Manicaland Province. 1190m. Flesh sweet. Cultivated. Seed.
482340. TGR 1328. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Flesh sweet, red. Cultivated. Seed.
482341. TGR 1428. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Flesh sweet, red. Seeds black. Cultivated. Seed.
482342. TGR 1431. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Flesh bitter, yellow. Seeds red. Flesh cooked and eaten, also fed to animals. Cultivated. Seed.
482343. TGR 1454. Zimbabwe. Latitude: 20 deg 04 m S; Longitude: 032 deg 25 m E. Collected June 11, 1982. Farmstore, Musanhi Clinic, Manicaland Province. 600m. Flesh mixed, bitter and sweet types. Cultivated. Seed.

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482344. TGR 1457. Zimbabwe. Latitude: 20 deg 03  $\text{m}$  S; Longitude: 032 deg 26  $\text{m}$  E. Collected June 11, 1982. Farmstore, 4km N of Musani BC, Manicaland Province. 700m. Flesh mixed sweet and bitter types. Cultivated. Seed.
482345. TGR 1465. Zimbabwe. Latitude: 20 deg 03  $\text{m}$  S; Longitude: 032 deg 21  $\text{m}$  E. Collected June 11, 1982. Farmstore, 14km S of Birchenough Bridge, Manicaland Province. 500m. Flesh sweet. Cultivated. Seed.
482346. TGR 1512. Zimbabwe. Latitude: 17 deg 29  $\text{m}$  S; Longitude: 029 deg 56  $\text{m}$  E. Collected June 16, 1982. Farmstore, 5km SE of Kanzamba BC, Mashonaland Province. 1000m. Sown November, harvested April. Flesh sweet and red mixed types. Cultivated. Seed.
482347. TGR 1530. Zimbabwe. Latitude: 17 deg 34  $\text{m}$  S; Longitude: 029 deg 36  $\text{m}$  E. Collected June 16, 1982. Farmstore, E from Gwidzma BC, Mashonaland West Province. 900m. Sown November, harvested April. Flesh sweet, red. Seeds black. Cultivated. Seed.
482348. TGR 1547. Zimbabwe. Latitude: 17 deg 33  $\text{m}$  S; Longitude: 029 deg 29  $\text{m}$  E. Collected June 16, 1982. Farmstore, Obva BC, Mashonaland West Province. 850m. Sown November, harvested April. Flesh sweet. Seeds black and brown. Cultivated. Seed.
482349. TGR 1564. Zimbabwe. Latitude: 17 deg 37  $\text{m}$  S; Longitude: 030 deg 11  $\text{m}$  E. Collected June 18, 1982. Farmstore, 15km N of Murombedzi BC, Mashonaland West Province. 1200m. Sown November, harvested April. Flesh mixed sweet and red types. Cultivated. Seed.
482350. TGR 1571. Zimbabwe. Latitude: 17 deg 39  $\text{m}$  S; Longitude: 030 deg 05  $\text{m}$  E. Collected June 18, 1982. Farmstore, 2km E of Chivere BC, Mashonaland West Province. 1100m. Sown November, harvested April. Flesh mixed sweet, red types. Cultivated. Seed.
482351. TGR 1624. Zimbabwe. Latitude: 16 deg 52  $\text{m}$  S; Longitude: 029 deg 24  $\text{m}$  E. Collected June 21, 1982. Farmstore, 20km SW of Magunje BC, Mashonaland West Province. 1200m. Sown November, harvested April. Flesh sweet, red. Seeds red. Cultivated. Seed.
482352. TGR 1630. Zimbabwe. Latitude: 16 deg 53  $\text{m}$  S; Longitude: 029 deg 28  $\text{m}$  E. Collected June 21, 1982. Farmstore, 8km E of Magunje BC, Mashonaland West Province. 1200m. Sown November, harvested April. Flesh sweet, red. Seeds black. Cultivated. Seed.

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482353. TGR 1633. Zimbabwe. Latitude: 16 deg 47 n S; Longitude: 029 deg 25 n E. Collected June 21, 1982. Farmstore, 7km N of Magunje BC, Mashonaland West Province. 1180m. Sown November, harvested April. Flesh sweet, red. Seeds black. Cultivated. Seed.
482354. TGR 1652. Zimbabwe. Latitude: 16 deg 57 n S; Longitude: 029 deg 28 n E. Collected June 22, 1982. Farmstore, 15km SE of Magunje BC, Mashonaland West Province. 1200m. Sown November, harvested April. Flesh sweet. Cultivated. Seed.
482355. TGR 1667. Zimbabwe. Latitude: 16 deg 59 n S; Longitude: 029 deg 27 n E. Collected June 22, 1982. Farmstore, 2km N of Samurnwo BC, Mashonaland West Province. 1200m. Sown November, harvested April. Flesh bitter. Cultivated. Seed.
482356. TGR 1674. Zimbabwe. Latitude: 17 deg 07 n S; Longitude: 029 deg 20 n E. Collected June 22, 1982. Farmstore, 14km S of Samuriow BC, Mashonaland West Province. 1100m. Sown November, harvested April. Flesh bitter. Cultivated. Seed.
482357. TGR 1677. Zimbabwe. Latitude: 17 deg 07 n S; Longitude: 029 deg 20 n E. Collected June 22, 1982. Farmstore, Chief Mujinga, Mashonaland West Province. 1100m. Sown November, harvested April. Flesh sweet. Cultivated. Seed.
482358. TGR 1738. Zimbabwe. Latitude: 16 deg 28 n S; Longitude: 029 deg 39 n E. Collected June 23, 1982. Farmstore, 1 km E of Mhondiwa, Mashonaland West Province. 1200m. Sown November, harvested April. Flesh sweet. Cultivated. Seed.
482359. TGR 1754. Zimbabwe. Latitude: 16 deg 38 n S; Longitude: 029 deg 46 n E. Collected June 24, 1982. Farmstore, 1 km W of Kadunga BC, Mashonaland West Province. 1200m. Sown November, harvested April. Flesh sweet, red. Cultivated. Seed.
482360. TGR 1762. Zimbabwe. Latitude: 16 deg 29 n S; Longitude: 029 deg 53 n E. Collected June 24, 1982. Farmstore, 14km N of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Mixed types. Flesh sweet, red. Cultivated. Seed.
482361. TGR 1763. Zimbabwe. Latitude: 16 deg 29 n S; Longitude: 029 deg 53 n E. Collected June 24, 1982. Farmstore, 14km N of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Flesh bitter, yellow. Seeds red. Cultivated. Seed.
482362. TGR 1772. Zimbabwe. Latitude: 16 deg 32 n S; Longitude: 029 deg 53 n E. Collected June 24, 1982. Farmstore, 6km E of Kadunga BC, Mashonaland West Province. 1100m. Sown

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- November, harvested April. Flesh sweet. Cultivated. Seed.
482363. TGR 1782. Zimbabwe. Latitude: 16 deg 33 m S; Longitude: 029 deg 54 m E. Collected June 24, 1982. Farmstore, 15km SE of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Flesh sweet. Cultivated. Seed.
482364. TGR 1798. Zimbabwe. Latitude: 16 deg 40 m S; Longitude: 029 deg 50 m E. Collected June 24, 1982. Farmstore, 9km E of Miami BC, Mashonaland West Province. 1100m. Sown November, harvested April. Flesh sweet. Seeds brown. Cultivated. Seed.
482365. TGR 1802. Zimbabwe. Latitude: 17 deg 24 m S; Longitude: 032 deg 12 m E. Collected June 29, 1982. Farmstore, 19km W of Manhenga BC, Mashonaland Central Province. 1150m. Sown November, harvested April. Flesh sweet. Cultivated. Seed.
482366. TGR 1828. Zimbabwe. Latitude: 17 deg 32 m S; Longitude: 031 deg 27 m E. Collected June 29, 1982. Farmstore, 9km E of Nyava BC, Mashonaland Central Province. 1300m. Sown November, harvested April. Flesh sweet. Cultivated. Seed.
482367. TGR 1858. Zimbabwe. Latitude: 16 deg 56 m S; Longitude: 031 deg 33 m E. Collected June 30, 1982. Farmstore, 10km E of Chief Madziwa, Mashonaland Central Province. 1050m. Sown November, harvested April. Flesh bitter, white. Seeds black. Cultivated. Seed.
482368. TGR 1877. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 031 deg 54 m E. Collected July 01, 1982. Farmstore, Nyamahobogo, Mashonaland Central Province. 900m. Sown November, harvested April. Flesh sweet, red. Cultivated. Seed.
482369. TGR 1884. Zimbabwe. Latitude: 16 deg 35 m S; Longitude: 032 deg 10 m E. Collected July 01, 1982. Farmstore, Nhavia School, Mashonaland Central Province. 1000m. Sown November, harvested April. Flesh sweet, red. Seeds black and brown. Cultivated. Seed.
482370. TGR 1899. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 032 deg 17 m E. Collected July 01, 1982. Farmstore, 1 km E from Nkondi Mt., Mashonaland Central Province. 750m. Sown November, harvested April. Flesh sweet, red. Cultivated. Seed.
482371. TGR 1927. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 031 deg 42 m E. Collected July 02, 1982. Farmstore, S of Mukumbura BC, Mashonaland Central Province. 450m. Sown November, harvested April. Flesh sweet, red. Seeds black and brown. Cultivated. Seed.

482246 TO 482381-continued

482372. TGR 1938. Zimbabwe. Latitude: 16 deg 25 m S; Longitude: 031 deg 49 m E. Collected July 02, 1982. Farmstore, 29km SE of Mukumbura BC, Mashonaland Central Province. 900m. Seeds white and black. Cultivated. Seed.
482373. TGR 1947. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 49 m E. Collected July 03, 1982. Farmstore, 3km W of Ganderson Mission, Mashonaland Central Province. 900m. Sown November, harvested April. Flesh sweet, red. Cultivated. Seed.
482374. TGR 1959. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 45 m E. Collected July 03, 1982. Farmstore, E of Chikwanda BC, Mashonaland Central Province. 980m. Sown November, harvested April. Flesh sweet, red. Cultivated. Seed.
482375. TGR 1968. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Sown November, harvested April. Flesh sweet, red. Seeds black. Cultivated. Seed.
482376. TGR 1984. Zimbabwe. Latitude: 16 deg 33 m S; Longitude: 031 deg 34 m E. Collected July 04, 1982. Farmstore, 1 km W of Dotito BC, Mashonaland Central Province. 990m. Sown November, harvested April. Flesh sweet. Seeds black and red. Cultivated. Seed.
482377. TGR 2005. Zimbabwe. Latitude: 16 deg 29 m S; Longitude: 031 deg 21 m E. Collected July 04, 1982. Farmstore, 10km E of St. Alberts Mission, Mashonaland Central Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482378. TGR 2006. Zimbabwe. Latitude: 16 deg 22 m S; Longitude: 031 deg 01 m E. Collected July 06, 1982. Farmstore, 6km N of Muzarabani Estate, Mashonaland Central Province. 410m. Sown December. Flesh sweet. Seeds black. Cultivated. Seed.
482379. TGR 2024. Zimbabwe. Latitude: 16 deg 15 m S; Longitude: 031 deg 07 m E. Collected July 06, 1982. Farmstore, S of Msengezi Mission, Mashonaland Central Province. 300m. Sown December. Skin yellow. Flesh bitter, white. Cultivated. Seed.
482380. TGR 2035. Zimbabwe. Latitude: 16 deg 17 m S; Longitude: 030 deg 35 m E. Collected July 06, 1982. Farmstore, 1 km W of Masomo School, Mashonaland Central Province. 400m. Flesh sweet. Seeds mixed black, brown, and red. Cultivated. Seed.
482381. TGR 2084. Zimbabwe. Latitude: 17 deg S; Longitude: 031

**482246 TO 482381-continued**

deg 05 m E. Collected July 09, 1982. Farmstore, 8km S of Madombwe, Mashonaland Central Province. 1200m. Sown November, harvested April. Flesh sweet, red. Seeds mixed black, brown, and red. Cultivated. Seed.

**482382. *Coccinia* sp. (Cucurbitaceae).**

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

TGR 160. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 031 deg 52 m E. Collected April 17, 1982. Farmland, 13km S of Magaisa, Bikita District, Victoria Province. 650m. Leaves used as a pot herb. Fruits red. Local name Mutangaya. Wild. Seed.

**482383 TO 482392. *Cucumis anguria* L. (Cucurbitaceae) West Indian gherkin.**

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482383. TGR 44. Zimbabwe. Latitude: 20 deg 23 m S; Longitude: 030 deg 40 m E. Collected April 14, 1982. Backyard, 19km E of Chiki, Chibi District, Victoria Province. 750m. Flowers yellow. Fruits oval, yellow with spines. Local name Machacha. Wild. Seed.

482384. TGR 80. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 22 m E. Collected April 15, 1982. Farmland, 32km NE of Gutu Do, Gutu District, Victoria Province. 1100m. Weed in maize field. Fruits yellow, spined. Wild. Seed.

482385. TGR 171. Zimbabwe. Latitude: 20 deg 15 m S; Longitude: 031 deg 03 m E. Collected April 19, 1982. Farmland, 3km E of Mashentere, Victoria Province. 1100m. Found in maize field. Fruits yellow, spiny. Wild. Seed.

482386. TGR 212. Zimbabwe. Latitude: 20 deg 56 m S; Longitude: 030 deg 38 m E. Collected April 25, 1982. Backyard, 2km SW of Neshuro, Nuanets District, Victoria Province. 600m. Wild. Seed.

482387. TGR 235. Zimbabwe. Latitude: 21 deg 04 m S; Longitude: 032 deg 07 m E. Collected April 21, 1982. Farmland, 11km

482383 TO 482392-continued

S of Sabi Bridge, Chiredze District, Victoria Province.  
400m. Wild. Seed.

482388. TGR 289. Zimbabwe. Latitude: 20 deg 40 m S; Longitude: 030 deg 38 m E. Collected April 26, 1982. Farmland, 19km SW of Berejena Junction, Victoria Provinia. 720m. Leaves eaten. Cultivated. Seed.
482389. TGR 539. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Backyard, 1.7km W of Mahedziwa BC, Manicaland Province. 1030m. Leaves used as a vegetable. Wild. Seed.
482390. TGR 898. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Backyard, 13km NW of Mkoba BC, Midlands Province. 1300m. Fruits small, round, spiny. Leaves eaten. Wild. Seed.
482391. TGR 1253. Zimbabwe. Latitude: 17 deg 50 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmland, Nyautare BC, Manicaland Province. 1300m. Fruits small, yellow, spiny. Leaves eaten. Wild. Seed.
482392. TGR 1928. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 031 deg 42 m E. Collected July 02, 1982. Farmland, S of Mukumbura, Mashonaland Central Province. 450m. Fruits small, yellow, spiny. Leaves eaten. Wild. Seed.

482393 TO 482434. Cucumis melo L. (Cucurbitaceae) Melon.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy.  
Received January 1983.

482393. TGR 96. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmland, 37km NE of Gutu Do, Gutu District, Victoria Province. 1150m. Found in field with wild cucumis. Fruits oval, yellow with dark green stripes. Cultivated. Seed.
482394. TGR 139. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 44 m E. Collected April 17, 1982. Farmland, 1 km SW of Magaisa, Bikita District, Victoria Province. 660m. Sown December, harvested April. Fruits smooth orange and yellow. Flesh white, sweet. Local name Mudyiwa. Cultivated. Seed.
482395. TGR 140. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 44 m E. Collected April 17, 1982. Farmland, 1 km SW of Magaisa, Bikita District, Victoria Province. 660m.

482393 TO 482434-continued

- Sown December, harvested April. Mottled skin. Flesh sweet, white. Local name Chikakaumbe. Cultivated. Seed.
482396. TGR 141. Zimbabwe. Latitude: 20 deg 24  $\mu$  S; Longitude: 031 deg 44  $\mu$  E. Collected April 17, 1982. Farmland, 1 km SW of Magaisa, Bikita District, Victoria Province. 660m. Sown December, harvested April. Skin yellow. Flesh bitter. Cultivated. Seed.
482397. TGR 150. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 51  $\mu$  E. Collected April 17, 1982. Farmland, 12km S of Angus, near Magaisa, Bikita District, Victoria Province. 650m. Found with other Cucumis types. Fruits yellow with green stripes. Cultivated. Seed.
482398. TGR 185. Zimbabwe. Latitude: 20 deg 25  $\mu$  S; Longitude: 031 deg 03  $\mu$  E. Collected April 19, 1982. Farmland, 27km S of Dombodema, near Kyle Dam Wall, Victoria Province. 800m. Sown October, harvested April. Fruits small, green. Flesh bitter, yellow. Leaves eaten as herbs. Cultivated. Seed.
482399. TGR 228. Zimbabwe. Latitude: 21 deg 07  $\mu$  S; Longitude: 032 deg 08  $\mu$  E. Collected April 21, 1982. Farmland, 20km S of Sabi Bridge, Chiredze District, Victoria Province. 350m. Sown November. Flesh bitter, cooked. Leaves eaten. Cultivated. Seed.
482400. TGR 234. Zimbabwe. Latitude: 21 deg 04  $\mu$  S; Longitude: 032 deg 07  $\mu$  E. Collected April 21, 1982. Farmland, 11km S of Sabi Bridge, Chiredze District, Victoria Province. 400m. Fruits orange. Flesh sweet. Associated with bitter type and wild type. Cultivated. Seed.
482401. TGR 240. Zimbabwe. Latitude: 32 deg 11  $\mu$  S; Longitude: 020 deg 48  $\mu$  E. Collected April 21, 1982. Farmland, 29km N of Sabi Bridge, Chiredze District, Victoria Province. 410m. Sown November. Flesh sweet. Cultivated. Seed.
482402. TGR 241. Zimbabwe. Latitude: 32 deg 11  $\mu$  S; Longitude: 020 deg 48  $\mu$  E. Collected April 21, 1982. Farmland, 29km N of Sabi Bridge, Chiredze District, Victoria Province. 410m. Cultivated. Seed.
482403. TGR 271. Zimbabwe. Latitude: 20 deg 33  $\mu$  S; Longitude: 030 deg 42  $\mu$  E. Collected April 26, 1982. Farmland, 13km S of Turgwana Bridge, Victoria Province. 760m. Fruits yellow, with green stripes. Flesh bitter, cooked. Leaves eaten. Cultivated. Seed.
482404. TGR 328. Zimbabwe. Latitude: 20 deg 24  $\mu$  S; Longitude: 031 deg 27  $\mu$  E. Collected April 30, 1982. Farmstore, 7km S of Zaka, Victoria Province. 650m. Fruits yellow with



482393 TO 482434-continued

- green stripes. Flesh medium sweet. Cultivated. Seed.
482405. TGR 329. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 27 m E. Collected April 30, 1982. Farmstore, 7km S of Zaka, Victoria Province. 650m. Fruits green, smooth. Flesh sweet, white. Cultivated. Seed.
482406. TGR 335. Zimbabwe. Latitude: 20 deg 25 m S; Longitude: 031 deg 25 m E. Collected April 30, 1982. Farmstore, 10km S of Zaka, Victoria Province. 720m. Fruits orange. Flesh sweet. Cultivated. Seed.
482407. TGR 336. Zimbabwe. Latitude: 20 deg 25 m S; Longitude: 031 deg 25 m E. Collected April 30, 1982. Farmstore, 10km S of Zaka, Victoria Province. 720m. Fruits orange and green striped. Flesh sweet. Cultivated. Seed.
482408. TGR 337. Zimbabwe. Latitude: 20 deg 25 m S; Longitude: 031 deg 25 m E. Collected April 30, 1982. Farmstore, 10km S of Zaka, Victoria Province. 720m. Fruits orange, no stripes. Flesh bitter, use unknown. Cultivated. Seed.
482409. TGR 338. Zimbabwe. Latitude: 20 deg 25 m S; Longitude: 031 deg 25 m E. Collected April 30, 1982. Farmstore, 10km S of Zaka, Victoria Province. 720m. Fruits oval, green with speckles. Flesh bitter. Cultivated. Seed.
482410. TGR 365. Zimbabwe. Latitude: 20 deg 19 m S; Longitude: 031 deg 26 m E. Collected April 30, 1982. Farmstore, 6.5km N of Zaka, Victoria Province. 850m. Fruits orange. Flesh sweet, white. Cultivated. Seed.
482411. TGR 554. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Farmstore, Manicaland Province. 1030m. Fruits orange with green stripes. Flesh sweet, white. Cultivated. Seed.
482412. TGR 580. Zimbabwe. Latitude: 19 deg 42 m S; Longitude: 032 deg 50 m E. Collected May 08, 1982. Farmstore, 20km N of Chikukwa BC, Manicaland Province. 1200m. Fruits large, yellow, and smooth. Cultivated. Seed.
482413. TGR 618. Zimbabwe. Latitude: 20 deg 21 m S; Longitude: 032 deg 45 m E. Collected May 10, 1982. Farmstore, 13.4km SW of Tamandayi BC, Manicaland Province. 1200m. Fruits small, oval, yellow. Seeds ground and used as butter or relish (vegetable). Cultivated. Seed.
482414. TGR 1250. Zimbabwe. Latitude: 17 deg 50 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, Nyoutare BC, Manicaland Province. 1100m. Fruits orange striped, smooth. Flesh sweet. Cultivated. Seed.

482393 TO 482434-continued

482415. TGR 1274. Zimbabwe. Latitude: 17 deg 47 m S; Longitude: 032 deg 59 m E. Collected June 03, 1982. Farmstore, 1 km E of Nyanghombe BC, Manicaland Province. 800m. Fruits large, orange, smooth. Flesh white, sweet. Cultivated. Seed.
482416. TGR 1415. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 58 m E. Collected June 08, 1982. Farmstore, Mandeya BC, Manicaland Province. 750m. Fruits large, yellow. Flesh white, sweet. Cultivated. Seed.
482417. TGR 1420. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Sown November. Fruits large, orange. Seed eaten. Cultivated. Seed.
482418. TGR 1452. Zimbabwe. Latitude: 20 deg 04 m S; Longitude: 032 deg 25 m E. Collected June 11, 1982. Farmstore, Musanhi Clinic, Manicaland Province. 600m. Sown November. Cultivated. Seed.
482419. TGR 1534. Zimbabwe. Latitude: 17 deg 27 m S; Longitude: 029 deg 35 m E. Collected June 16, 1982. Farmstore, 1 km W of Kenzamba BC, Mashonaland West Province. 900m. Fruits, oblong, smooth, orange. Flesh, white. Cultivated. Seed.
482420. TGR 1551. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 029 deg 29 m E. Collected June 16, 1982. Farmstore, Obva BC, Mashonaland West Province. 850m. Fruits, orange, smooth. Flesh sweet, white. Cultivated. Seed.
482421. TGR 1681. Zimbabwe. Latitude: 17 deg 11 m S; Longitude: 029 deg 24 m E. Collected June 22, 1982. Farmstore, Chief Mujinga, Mashonaland West Province. 1100m. Sown November, harvested April. Fruits smooth, orange-green, striped. Cultivated. Seed.
482422. TGR 1687. Zimbabwe. Latitude: 17 deg 11 m S; Longitude: 029 deg 24 m E. Collected June 22, 1982. Farmstore, Chief Mujinga, Mashonaland West Province. 1080m. Fruits orange, smooth. Flesh sweet, white. Cultivated. Seed.
482423. TGR 1708. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 36 m E. Collected June 23, 1982. Farmstore, 4km NE of Chitake River Bridge, Mashonaland West Province. 1200m. Fruits large, yellow with longitudinal ridges. Flesh white, sweet. Cultivated. Seed.
482424. TGR 1709. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 36 m E. Collected June 23, 1982. Farmland, 4km NE

482393 TO 482434-continued

- of Chitake River Bridge, Mashonaland West Province. 1200m. Fruits yellow, round. Flesh slightly bitter, cooked when immature. Cultivated. Seed.
482425. TGR 1731. Zimbabwe. Latitude: 16 deg 28 m S; Longitude: 029 deg 39 m E. Collected June 23, 1982. Farmland, 1 km E of Mhondiwa BC, Mashonaland West Province. 1200m. Fruits yellow, large, pimped. Cultivated. Seed.
482426. TGR 1748. Zimbabwe. Latitude: 16 deg 36 m S; Longitude: 029 deg 46 m E. Collected June 24, 1982. Farmstore, 11km W of Kadunga BC, Mashonaland West Province. 1200m. Sown November, harvested April. Fruits round, smooth, yellow. Flesh white. Melon odor. Cultivated. Seed.
482427. TGR 1766. Zimbabwe. Latitude: 16 deg 29 m S; Longitude: 029 deg 53 m E. Collected June 24, 1982. Farmstore, 14km N of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Fruits orange to green stripes. Flesh white. Cultivated. Seed.
482428. TGR 1784. Zimbabwe. Latitude: 16 deg 33 m S; Longitude: 029 deg 54 m E. Collected June 24, 1982. Farmstore, 15km SE of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Fruits large, oblong, orange. Flesh white. Cultivated. Seed.
482429. TGR 1843. Zimbabwe. Latitude: 17 deg 07 m S; Longitude: 031 deg 36 m E. Collected June 30, 1982. Farmstore, 4km N of Chakonda BC, Mashonaland Central Province. 950m. Sown November. Fruits smooth, purple-yellow. Flesh white. Cultivated. Seed.
482430. TGR 1920. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 031 deg 42 m E. Collected July 02, 1982. Farmstore, Mjukumbura BC, Mashonaland Central Province. 450m. Sown November. Fruits large, orange, smooth. Flesh white. Cultivated. Seed.
482431. TGR 1937. Zimbabwe. Latitude: 16 deg 25 m S; Longitude: 031 deg 49 m E. Collected July 02, 1982. Farmstore, 29km SE of Mukumbura BC, Mashonaland Central Province. 900m. Sown November, harvested April. Fruits orange, smooth. Cultivated. Seed.
482432. TGR 1958. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 45 m E. Collected July 03, 1982. Farmstore, E of Chawanda BC, Mashonaland Central Province. 780m. Sown November, harvested April. Fruits yellow, smooth with green speckling. Flesh white. Cultivated. Seed.
482433. TGR 2018. Zimbabwe. Latitude: 16 deg 18 m S; Longitude: 031 deg 05 m E. Collected July 06, 1982. Farmstore, 25km

482393 TO 482434-continued

NE of Mzarabani, Mashonaland Central Province. 400m.  
Fruits yellow, smooth. Flesh white. Cultivated. Seed.

482434. TGR 2047. Zimbabwe. Latitude: 16 deg 03 m S; Longitude: 030 deg 18 m E. Collected July 07, 1982. Farmstore, 9km W of Angwa Bridge, Mashonaland Central Province. 400m. Fruits yellow, smooth. Flesh white. Cultivated. Seed.

482435 TO 482462. *Cucumis metuliferus* E. Mey. ex Naudin  
(Cucurbitaceae).

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy.  
Received January 1983.

482435. TGR 28. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 031 deg 18 m E. Collected April 08, 1982. Farmland, 4km SE of Makumbe BC, Mashonaland East Province. 1300m. Fruits eaten fresh, have stout spines. Weedy pumpkin and squash occur in same field. Wild. Seed.
482436. TGR 103. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmland, 37km NE of Gutu Do, Gutu District, Victoria Province. 1150m. Fruits eaten fresh, have stout spines. Wild. Seed.
482437. TGR 607. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 15, 1982. Backyard, 1 km S of Tamandayi BC, Manicaland Province. 700m. Fruits eaten fresh, spiny. Flesh green. Cultivated. Seed.
482438. TGR 672. Zimbabwe. Latitude: 18 deg 50 m S; Longitude: 029 deg 03 m E. Collected May 17, 1982. Farmstore, 32.6km W of Crossroads, Midlands Province. 1000m. Sown December. Fruits have spines. Flesh sweet, green. Cultivated. Seed.
482439. TGR 778. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N of All Saints School, Midlands Province. 1490m. Spined. Flesh green. Fruits eaten fresh, spiny. Cultivated. Seed.
482440. TGR 836. Zimbabwe. Latitude: 18 deg 15 m S; Longitude: 028 deg 44 m E. Collected May 21, 1982. Farmstore, 35km W of Gokwe Do, Midlands Province. 1100m. Flesh sweet, green. Fruits eaten fresh, spiny. Cultivated. Seed.
482441. TGR 930. Zimbabwe. Latitude: 19 deg 14 m S; Longitude: 029 deg 58 m E. Collected May 24, 1982. Backyard, 5km E of Muchakata BC, Midlands Province. 1300m. Flesh sweet, green. Fruits eaten fresh, spiny. Cultivated. Seed.

482435 TO 482462-continued

482442. TGR 1053. Zimbabwe. Latitude: 19 deg 43 m S; Longitude: 030 deg 10 m E. Collected May 26, 1982. Farmstore, 3km N of Donga, Midlands Province. 1250m. Flesh green. Fruits eaten fresh, spiny. Cultivated. Seed.
482443. TGR 1082. Zimbabwe. Latitude: 19 deg 44 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. Farmstore, 19km SE of Hanke BC, Midlands Province. 1200m. Flesh green. Fruits eaten fresh, orange, spiny. Cultivated. Seed.
482444. TGR 1252. Zimbabwe. Latitude: 17 deg 50 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmland, Nyautare BC, Manicaland Province. 1100m. Wild cucumis occurs in same field. Fruits eaten when young, spiny. Cultivated. Seed.
482445. TGR 1267. Zimbabwe. Latitude: 17 deg 47 m S; Longitude: 032 deg 59 m E. Collected June 03, 1982. Farmstore, 1 km SW of Nyanghombe BC, Manicaland Province. 800m. Fruits eaten fresh, spiny. Flesh sweet, green. Cultivated. Seed.
482446. TGR 1283. Zimbabwe. Latitude: 17 deg 54 m S; Longitude: 032 deg 52 m E. Collected June 03, 1982. Farmstore, Kute School, Manicaland Province. 900m. Fruits eaten fresh, spiny. Flesh sweet, green. Cultivated. Seed.
482447. TGR 1523. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 029 deg 38 m E. Collected June 18, 1982. Farmstore, N of Mapfungwe School, Mashonaland West Province. 880m. Fruits eaten fresh. Cultivated. Seed.
482448. TGR 1555. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 029 deg 29 m E. Collected June 18, 1982. Farmstore, N of Murobedzi BC, Mashonaland West Province. 850m. Fruits eaten fresh. Cultivated. Seed.
482449. TGR 1569. Zimbabwe. Latitude: 17 deg 39 m S; Longitude: 030 deg 05 m E. Collected June 18, 1982. Farmstore, 2km E of Chivere BC, Mashonaland West Province. 1100m. Fruits eaten fresh. Cultivated. Seed.
482450. TGR 1629. Zimbabwe. Latitude: 16 deg 53 m S; Longitude: 029 deg 28 m E. Collected June 21, 1982. Farmstore, 8km E of Magunje BC, Mashonaland West Province. 1200m. Fruits eaten fresh, spiny. Cultivated. Seed.
482451. TGR 1635. Latitude: 16 deg 47 m S; Longitude: 029 deg 25 m E. Collected June 21, 1982. Farmstore, 7km N of Magunje BC, Mashonaland West Province. 1180m. Fruits eaten fresh, spiny. Cultivated. Seed.
482452. TGR 1641. Zimbabwe. Latitude: 16 deg 46 m S; Longitude:

482435 TO 482462-continued

- 029 deg 24 m E. Collected June 21, 1982. Farmstore, 12km NW of Magunge BC, Mashonaland West Province. 1100m. Fruits eaten fresh, spiny. Cultivated. Seed.
482453. TGR 1710. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 36 m E. Collected June 23, 1982. Farmland, 4km NE of Chitake River Bridge, Mashonaland West Province. 1200m. Fruits oval, green. Flesh pimpled-green. Cultivated. Seed.
482454. TGR 1712. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 36 m E. Collected June 23, 1982. Farmland, 4km NE of Chitake River Bridge, Mashonaland West Province. 1200m. Fruits eaten fresh, elongated, spiny. Flesh green. Cultivated. Seed.
482455. TGR 1713. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 36 m E. Collected June 23, 1982. Farmland, 4km NE of Chitake River Bridge, Mashonaland West Province. 1200m. Fruits yellow, oblong, and spiny. Cultivated. Seed.
482456. TGR 1714. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 36 m E. Collected June 23, 1982. Farmland, 4km NE of Chitake River Bridge, Mashonaland West Province. 1200m. Fruits eaten fresh, round, spiny. Flesh green. Cultivated. Seed.
482457. TGR 1831. Zimbabwe. Latitude: 17 deg 32 m S; Longitude: 031 deg 27 m E. Collected June 29, 1982. Farmstore, 9km E of Nyava BC, Mashonaland Central Province. 1300m. Fruits eaten fresh, spiny. Flesh green. Cultivated. Seed.
482458. TGR 1882. Zimbabwe. Latitude: 16 deg 35 m S; Longitude: 032 deg 10 m E. Collected July 01, 1982. Backyard, Nhawa School, Mashonaland Central Province. 1000m. Fruits eaten fresh, spiny. Cultivated. Seed.
482459. TGR 1957. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 45 m E. Collected July 03, 1982. Farmstore, E of Chawanda BC, Mashonaland Central Province. 980m. Fruits eaten fresh, round, spiny. Cultivated. Seed.
482460. TGR 1962. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 42 m E. Collected July 03, 1982. Farmstore, E of Chawanda BC, Mashonaland Central Province. 980m. Fruits eaten fresh, mixture of types with few spines and stout spines. Flesh green. Cultivated. Seed.
482461. TGR 1979. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 42 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Fruits spineless. Flesh green. Cultivated. Seed.
482462. TGR 2066. Zimbabwe. Latitude: 16 deg 46 m S; Longitude:

482435 TO 482462-continued

030 deg 47 m E. Collected July 08, 1982. Farmstore, 19km S of Sipolilo, Mashonaland Central Province. 1340m. Fruits eaten fresh, spiny. Flesh green. Cultivated. Seed.

482463 TO 482464. *Cucumis sativus* L. (Cucurbitaceae) Cucumber.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482463. TGR 1542. Zimbabwe. Latitude: 17 deg 26 m S; Longitude: 029 deg 31 m E. Collected June 16, 1982. Farmstore, Nyare BC, Mashonaland West Province. 900m. Cultivated. Seed.

482464. TGR 1785. Zimbabwe. Latitude: 16 deg 33 m S; Longitude: 029 deg 51 m E. Collected June 24, 1982. Farmstore, 15km SE of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Fruits cigar-shaped, white/green with some warts. Flesh white. Cultivated. Seed.

482465. *Cucumis* sp. (Cucurbitaceae).

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

TGR 1620. Zimbabwe. Latitude: 16 deg 56 m S; Longitude: 029 deg 23 m E. Collected June 21, 1982. Farmstore, S of Magunje BC, Mashonaland West Province. 1100m. Fruits spiny, eaten fresh. Cultivated. Seed.

482466 TO 482486. *Cucurbita maxima* Duch. (Cucurbitaceae) Winter squash.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482466. TGR 55. Zimbabwe. Latitude: 20 deg 12 m S; Longitude: 030 deg 26 m E. Collected April 14, 1982. Farmstore, 9km N of Chibi Do, Chibi District, Victoria Province. 950m. Sown November, harvested April. Cultivated. Seed.

482467. TGR 306. Zimbabwe. Latitude: 19 deg 48 m S; Longitude: 030 deg 51 m E. Collected April 29, 1982. Farmstore, 30km

482466 TO 482486-continued

- N of Fort Victoria, Victoria Province. 1240m. Sown November, harvested April. Cultivated. Seed.
482468. TGR 581. Zimbabwe. Latitude: 19 deg 42 m S; Longitude: 032 deg 50 m E. Collected May 08, 1982. Farmstore, .2km N of Chikukwa BC, Manicaland Province. 1200m. Sown October, harvested April. Cultivated. Seed.
482469. TGR 664. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 029 deg 07 m E. Collected May 17, 1982. Farmstore, 25km N of Crossroads, Midlands Province. 1000m. Sown November, harvested April. Local name Nzuznzu. Cultivated. Seed.
482470. TGR 681. Zimbabwe. Latitude: 18 deg 50 m S; Longitude: 029 deg 03 m E. Collected May 17, 1982. Farmstore, 32.6km W of Crossroads, Midlands Province. 1000m. Fruits flat-shaped, white. Local name Mboko. Cultivated. Seed.
482471. TGR 710. Zimbabwe. Latitude: 18 deg 40 m S; Longitude: 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Local name Mutala. Cultivated. Seed.
482472. TGR 723. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmstore, 28km N of Zhombe BC, Midlands Province. 1080m. Sown December. Fruits flat, white. Local name Fere. Cultivated. Seed.
482473. TGR 906A. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Farmstore, 13km NW of Mkoba BC, Midlands Province. 1300m. Sown October. Fruits of mixed types. Cultivated. Seed.
482474. TGR 1045. Zimbabwe. Latitude: 19 deg 43 m S; Longitude: 030 deg 10 m E. Collected May 26, 1982. Farmstore, 3km N of Donoa, Midlands Province. 1250m. Fruits flat, fluted, yellow/white. Seeds bright white. Local name Nbokochena. Cultivated. Seed.
482475. TGR 1107. Zimbabwe. Latitude: 20 deg 42 m S; Longitude: 030 deg 22 m E. Collected May 27, 1982. Farmstore, 8km SE of Masuino, Midlands Province. 850m. Fruits flat, round, creamy yellow. Cultivated. Seed.
482476. TGR 1157. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 030 deg 17 m E. Collected May 28, 1982. Farmstore, 7km N of Zurubi, Midlands Province. 850m. Fruits round, white skin. Cultivated. Seed.
482477. TGR 1239. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 4km E of Nyatate BC, Manicaland Province. 1190m. Local name Nyamutunika. Cultivated. Seed.



482466 TO 482486-continued

482478. TGR 1243. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 4km E of Nyatate BC, Manicaland North Province. 1190m. Cultivated. Seed.
482479. TGR 1248A. Zimbabwe. Latitude: 17 deg 50 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, Nyautare, Manicaland Province. 1100m. Seeds white. Local name Nyamutumha and Nzururu. Cultivated. Seed.
482480. TGR 1248E. Zimbabwe. Latitude: 17 deg 50 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, Nyautare, Manicaland Province. 1100m. Seeds tan. Local name Nyamutumha and Nzururu. Cultivated. Seed.
482481. TGR 1436. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Cultivated. Seed.
482482. TGR 1548. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 029 deg 29 m E. Collected June 16, 1982. Farmstore, Obva BC, Mashonaland West Province. 850m. Sown November, harvested April. Cultivated. Seed.
482483. TGR 1783. Zimbabwe. Latitude: 16 deg 33 m S; Longitude: 029 deg 54 m E. Collected June 24, 1983. Farmstore, 15km SE of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482484. TGR 1945. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 49 m E. Collected July 03, 1982. Farmstore, 3km W of Ganderson Mission, Mashonaland Central Province. 900m. Sown November, harvested April. Cultivated. Seed.
482485. TGR 1980. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Sown November, harvested April. Local name Dindimanga. Cultivated. Seed.
482486. TGR 2102. Zimbabwe. Latitude: 22 deg 50 m S; Longitude: 031 deg 12 m E. Collected April 22, 1982. Farmstore, 25km N of Malipati, Victoria Province. 340m. Cultivated. Seed.

482487 TO 482588. *Cucurbita moschata* (Duch.) Duch. ex Poir.  
(Cucurbitaceae) Squash.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant

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Genetic Resources (IBPGR), Rome, Italy.

Received January 1983.

482487. TGR 27A. Zimbabwe. Latitude: 17 deg 33 n S; Longitude: 031 deg 18 n E. Collected April 08, 1982. Farmland, 5km from Makumbe, Mashonaland East Province. 1300m. Sown November, harvested April. Cultivated. Seed.
482488. TGR 27B. Zimbabwe. Latitude: 17 deg 33 n S; Longitude: 031 deg 18 n E. Collected April 08, 1982. Farmland, 5km from Makumbe, Mashonaland East Province. 1300m. Sown November, harvested April. Cultivated. Seed.
482489. TGR 27C. Zimbabwe. Latitude: 17 deg 33 n S; Longitude: 031 deg 18 n E. Collected April 08, 1982. Farmland, 5km from Makumbe, Mashonaland East Province. 1300m. Sown November, harvested April. Cultivated. Seed.
482490. TGR 95. Zimbabwe. Latitude: 19 deg 32 n S; Longitude: 031 deg 25 n E. Collected April 15, 1982. Farmland, 37km NE from Gutu Do, Gutu District, Victoria Province. 1150m. Sown October, harvested April. Fruits flatish with fluted edges. Local name Fere. Cultivated. Seed.
482491. TGR 148. Zimbabwe. Latitude: 20 deg 20 n S; Longitude: 031 deg 51 n E. Collected April 17, 1982. Farmland, 12km S of Angus near Magaisa, Bikita District, Victoria Province. 650m. Sown October, harvested April. Plants associated with Cucumis. Local name Mkoiko. Cultivated. Seed.
482492. TGR 149. Zimbabwe. Latitude: 20 deg 26 n S; Longitude: 031 deg 51 n E. Collected April 17, 1982. Farmland, 12km S of Angus near Magaisa, Bikita District, Victoria Province. 650m. Sown October, harvested April. Fruits whitish. Local name Fere. Cultivated. Seed.
482493. TGR 169. Zimbabwe. Latitude: 20 deg 15 n S; Longitude: 031 deg 03 n E. Collected April 19, 1982. Farmland, 3km E of Mashenjere BC, Victoria Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482494. TGR 227. Zimbabwe. Latitude: 21 deg 08 n S; Longitude: 032 deg 08 n E. Collected April 21, 1982. Farmland, 20km S of Sabi Bridge, Chiredze District, Victoria Province. 350m. Sown November, harvested April. Plants associated with weedy pumpkin and squash. Fruit oval. Cultivated. Seed.
482495. TGR 255. Zimbabwe. Latitude: 20 deg 26 n S; Longitude: 031 deg 36 n E. Collected April 23, 1982. Farmstore, 15km SW of Zaka, Ndanoa District, Victoria Province. 660m. Cultivated. Seed.

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482496. TGR 300. Zimbabwe. Latitude: 19 deg 53 m S; Longitude: 030 deg 51 m E. Collected April 29, 1982. Farmstore, 23km N of Fort Victoria, Victoria Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482497. TGR 314. Zimbabwe. Latitude: 19 deg 46 m S; Longitude: 030 deg 58 m E. Collected April 29, 1982. Farmstore, 36km N of Fort Victoria, Victoria Province. 1300m. Fruits large, orange/green. Flesh sweet. Local name Nzunzu. Cultivated. Seed.
482498. TGR 323. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 27 m E. Collected April 30, 1982. Farmstore, 7km S of Zaka, Victoria Province. 650m. Cultivated. Seed.
482499. TGR 344. Zimbabwe. Latitude: 20 deg 27 m S; Longitude: 031 deg 20 m E. Collected April 30, 1982. Farmstore, 23km SW of Zaka, Victoria Province. 720m. Fruits green and white. Cultivated. Seed.
482500. TGR 358. Zimbabwe. Latitude: 20 deg 19 m S; Longitude: 031 deg 26 m E. Collected April 30, 1982. Farmstore, 6.5km N of Zaka, Victoria Province. 850m. Cultivated. Seed.
482501. TGR 490. Zimbabwe. Latitude: 20 deg 03 m S; Longitude: 032 deg 32 m E. Collected May 05, 1982. Farmstore, 1 km E of Gata Rest Camp, Manicaland Province. 700m. Sown September, harvested April. Cultivated. Seed.
482502. TGR 553. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Farmstore, 1.7km W of Mhedziwa BC, Manicaland Province. 1030m. Cultivated. Seed.
482503. TGR 575. Zimbabwe. Latitude: 19 deg 41 m S; Longitude: 032 deg 57 m E. Collected May 08, 1982. Farmstore, 3.2km NE of Chikukwa BC, Manicaland Province. 1500m. Sown November. Cultivated. Seed.
482504. TGR 588. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Farmstore, 1.8km NE of Tamandayi BC, Manicaland Providence. 700m. Local name Donda. Cultivated. Seed.
482505. TGR 594. Zimbabwe. Latitude: 20 deg 15 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Farmstore, Tamandayi BC, Manicaland Province. 700m. Cultivated. Seed.
482506. TGR 596. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 15, 1982. Farmstore, Tamandayi BC, Manicaland Province. 700m. Sown October,

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harvested April. Cultivated. Seed.

482507. TGR 623. Zimbabwe. Latitude: 20 deg 22 m S; Longitude: 032 deg 46 m E. Collected May 10, 1982. Farmstore, 17.8km of Tamandayi BC, Manicaland Province. 900m. Cultivated. Seed.
482508. TGR 632. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 032 deg 43 m E. Collected May 11, 1982. Farmstore, 1.1km S of Mt. Selinda Mission, Manicaland Province. 980m. Cultivatcd. Seed.
482509. TGR 644. Zimbabwe. Latitude: 20 deg 26 m ; Longitude: 032 deg 45 m E. Collected May 11, 1982. Farmstore, 8.3km S of Mt. Selinda Mission, Manicaland Province. 860m. Cultivated. Seed.
482510. TGR 659. Zimbabwe. Latitude: 15 deg 53 m S; Longitude: 029 deg 07 m E. Collected May 17, 1982. Farmstore, 24km N of Crossroads, Midlands Province. 1100m. Sown November, harvested April. Local name Nzunzu. Cultivated. Seed.
482511. TGR 677. Zimbabwe. Latitude: 18 deg 50 m S; Longitude: 029 deg 03 m E. Collected May 17, 1982. Farmstore, 32.6km N of Crossroads, Midlands Province. 1000m. Local name Nzunzu. Cultivated. Seed.
482512. TGR 689. Zimbabwe. Latitude: 18 deg 48 m S; Longitude: 028 deg 58 m E. Collected May 17, 1982. Farmstore, 39km W of Crossroads, Midlands Province. 1000m. Mixture of white fruited type and Nzunzu. Local name Nzunzu. Cultivated. Seed.
482513. TGR 699. Zimbabwe. Latitude: 18 deg 47 m ; Longitude: 029 deg 26 m E. Collected May 18, 1982. Farmstore, 22.6km E of Zhombe BC, Midlands Province. 1150m. Local name Nhengere (Nzunzu). Cultivated. Seed.
482514. TGR 709. Zimbabwe. Latitude: 18 deg 40 m S; Longitude: 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe, Midlands Province. 1130m. Sown December. Local name Nzunzu. Cultivated. Seed.
482515. TGR 724. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmstore, 28km N of Zhombe BC, Midlands Province. 1080m. Local name Nzunzu. Cultivated. Seed.
482516. TGR 747. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Cultivated. Seed.

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482517. TGR 768. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N of All Saints School, Midlands Province. 1490m. Local name Nzunzu. Cultivated. Seed.
482518. TGR 781. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N of All Saints School, Midlands Province. 1490m. Local name Nzunzu. Cultivated. Seed.
482519. TGR 841. Zimbabwe. Latitude: 18 deg 15 m S; Longitude: 028 deg 24 m E. Collected May 21, 1982. Farmstore, 35km W of Gokwe Do, Midlands Province. 1100m. Local name Mboko. Cultivated. Seed.
482520. TGR 852. Zimbabwe. Latitude: 18 deg 14 m S; Longitude: 028 deg 41 m E. Collected May 21, 1982. Farmstore, 39km W of Gokwe Do, Midlands Province. 1100m. Local name Mboko. Cultivated. Seed.
482521. TGR 865. Zimbabwe. Latitude: 18 deg 10 m S; Longitude: 028 deg 34 m E. Collected May 22, 1982. Farmstore, 10km W of Manyoni BC, Midlands Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482522. TGR 871. Zimbabwe. Latitude: 18 deg 07 m S; Longitude: 028 deg 31 m E. Collected May 22, 1982. Farmstore, 19km W of Manyoni BC, Midlands Province. 1100m. Local name Fere. Cultivated. Seed.
482523. TGR 906B. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Farmstore, 13km NW of Mkoba BC, Midlands Province. 1300m. Sown October. Fruits of mixed types. Cultivated. Seed.
482524. TGR 1060. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. Farmstore, 36km NE of Donca, Midlands Province. 1200m. Fruits large, round, green and yellow striped. Cultivated. Seed.
482525. TGR 1081. Zimbabwe. Latitude: 19 deg 44 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. Farmstore, 19km SE of Hanke BC, Midlands Province. 1200m. Fruits flat and fluted. Flesh white. Local name Mboko. Cultivated. Seed.
482526. TGR 1108. Zimbabwe. Latitude: 20 deg 42 m S; Longitude: 030 deg 22 m E. Collected May 27, 1982. Farmstore, 8km SE of Masuinoo, Midlands Province. 850m. Fruits creamy yellow. Cultivated. Seed.
482527. TGR 1143. Zimbabwe. Latitude: 20 deg 44 m S; Longitude: 030 deg 12 m E. Collected May 27, 1982. Farmstore,

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- Maranda EC, Midlands Province. 850m. Fruits large, oval creamy yellow skinned types and green striped types. Cultivated. Seed.
482528. TGR 1155. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 030 deg 17 m E. Collected May 28, 1982. Farmstore, 7km N of Zurubi, Midlands Province. 850m. Fruits green and cream. Cultivated. Seed.
482529. TGR 1169. Zimbabwe. Latitude: 20 deg 08 m S; Longitude: 029 deg 51 m E. Collected May 28, 1982. Farmstore, 3km N of Shabiani, Midlands Province. 1050m. Fruits green and cream. Cultivated. Seed.
482530. TGR 1183. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 036 deg 05 m E. Collected June 01, 1982. Farmstore, 2km E of Tsanzaguru BC, Manicaland Province. 1320m. Fruits oval, yellowish and green-spotted. Cultivated. Seed.
482531. TGR 1211. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 036 deg 05 m E. Collected June 01, 1982. Farmstore, 6km S of Tsanzaguru, Manicaland Province. 1320m. Local name Nzunzu. Cultivated. Seed.
482532. TGR 1237. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 4km E of Nyatate BC, Manicaland Province. 1190m. Local name Nzururu. Cultivated. Seed.
482533. TGR 1262. Zimbabwe. Latitude: 17 deg 52 m S; Longitude: 032 deg 57 m E. Collected June 03, 1982. Farmstore, Nyaruaka BC, Manicaland Province. 800m. Sown November, harvested April. Local name Nzururu. Cultivated. Seed.
482534. TGR 1268. Zimbabwe. Latitude: 17 deg 47 m S; Longitude: 032 deg 59 m E. Collected June 03, 1982. Farmstore, 1 km SW of Nyanghombe BC, Manicaland Province. 800m. Sown November, harvested April. Cultivated. Seed.
482535. TGR 1290. Zimbabwe. Latitude: 17 deg 52 m S; Longitude: 032 deg 52 m E. Collected June 03, 1982. Farmstore, Nyanurundira, Manicaland Province. 1200m. Local name Musonde. Cultivated. Seed.
482536. TGR 1311. Zimbabwe. Latitude: 18 deg 34 m S; Longitude: 032 deg 48 m E. Collected June 07, 1982. Farmstore, Honde BC, Manicaland Province. 850m. Fruits mixture of types. Local names include Nzururu and others. Cultivated. Seed.
482537. TGR 1330. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Cultivated. Seed.

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482538. TGR 1340. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Local name Nzururu. Cultivated. Seed.
482539. TGR 1371. Zimbabwe. Latitude: 18 deg 30 m S; Longitude: 032 deg 50 m E. Collected June 07, 1982. Farmstore, 1 km W of Hauna BC, Manicaland Province. 800m. Local name Nzururu. Cultivated. Seed.
482540. TGR 1392. Zimbabwe. Latitude: 18 deg 18 m S; Longitude: 033 deg E. Collected June 07, 1982. Farmstore, Sagange BC, Manicaland Province. 700m. Cultivated. Seed.
482541. TGR 1411. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 58 m E. Collected June 08, 1982. Farmstore, Mandeya EC, Manicaland Province. 750m. Cultivated. Seed.
482542. TGR 1422. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Cultivated. Seed.
482543. TGR 1437. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Cultivated. Seed.
482544. TGR 1441. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Cultivated. Seed.
482545. TGR 1442. Zimbabwe. Latitude: 20 deg 51 m S; Longitude: 032 deg 16 m E. Collected June 09, 1982. Farmstore, 7km N of Chinyankwakwa BC, Manicaland Province. 390m. Cultivated. Seed.
482546. TGR 1445. Zimbabwe. Latitude: 20 deg 53 m S; Longitude: 032 deg 17 m E. Collected June 09, 1982. Farmstore, 4km W of Chinyankwakwa BC, Manicaland Province. 390m. Cultivated. Seed.
482547. TGR 1446. Zimbabwe. Latitude: 20 deg 53 m S; Longitude: 032 deg 17 m E. Collected June 09, 1982. Farmstore, 4km W of Chinyankwakwa BC, Manicaland Province. 390m. Fruits green and cream colored. Cultivated. Seed.
482548. TGR 1453. Zimbabwe. Latitude: 20 deg 04 m S; Longitude: 032 deg 25 m E. Collected June 11, 1982. Farmstore, Musanhi Clinic, Manicaland Province. 600m. Cultivated. Seed.

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482549. TGR 1456. Zimbabwe. Latitude: 20 deg 03  $\text{m}$  S; Longitude: 032 deg 26  $\text{m}$  E. Collected June 11, 1982. Farmstore, 4km N of Musani BC, Manicaland Province. 700m. Mixed types. Cultivated. Seed.
482550. TGR 1467. Zimbabwe. Latitude: 20 deg 04  $\text{m}$  S; Longitude: 032 deg 21  $\text{m}$  E. Collected June 11, 1982. Farmstore, 14km S of Blachenouchi Bridge, Manicaland Province. 500m. Fruits mixed. Cultivated. Seed.
482551. TGR 1469. Zimbabwe. Latitude: 17 deg 41  $\text{m}$  S; Longitude: 029 deg 45  $\text{m}$  E. Collected June 15, 1982. Farmstore, Hombwe BC, Mashonaland West Province. 900m. Cultivated. Seed.
482552. TGR 1474. Zimbabwe. Latitude: 17 deg 41  $\text{m}$  S; Longitude: 029 deg 45  $\text{m}$  E. Collected June 15, 1982. Farmstore, Hombwe BC, Mashonaland West Province. 900m. Cultivated. Seed.
482553. TGR 1475. Zimbabwe. Latitude: 17 deg 41  $\text{m}$  S; Longitude: 029 deg 45  $\text{m}$  E. Collected June 15, 1982. Farmstore, Hombwe BC, Mashonaland West Province. 900m. Cultivated. Seed.
482554. TGR 1488. Zimbabwe. Latitude: 17 deg 45  $\text{m}$  S; Longitude: 029 deg 43  $\text{m}$  E. Collected June 15, 1982. Farmstore, St. Rupert's Mission, Mashonaland West Province. 900m. Sown November, harvested April. Cultivated. Seed.
482555. TGR 1497. Zimbabwe. Latitude: 17 deg 45  $\text{m}$  S; Longitude: 029 deg 43  $\text{m}$  E. Collected June 15, 1982. Farmstore, St. Rupert's Mission, Mashonaland West Province. 900m. Sown November, harvested April. Cultivated. Seed.
482556. TGR 1507. Zimbabwe. Latitude: 17 deg 46  $\text{m}$  S; Longitude: 029 deg 49  $\text{m}$  E. Collected June 15, 1982. Farmstore, Chipfuvamuti School, Mashonaland West Province. 1000m. Sown November, harvested April. Cultivated. Seed.
482557. TGR 1511. Zimbabwe. Latitude: 17 deg 29  $\text{m}$  S; Longitude: 029 deg 36  $\text{m}$  E. Collected June 16, 1982. Farmstore, Kenzamba BC, Mashonaland West Province. 1000m. Sown November, harvested April. Cultivated. Seed.
482558. TGR 1513. Zimbabwe. Latitude: 17 deg 32  $\text{m}$  S; Longitude: 029 deg 36  $\text{m}$  E. Collected June 16, 1982. Farmstore, 10km SE of Kenzamba BC, Mashonaland West Province. 1000m. Sown November, harvested April. Cultivated. Seed.
482559. TGR 1524. Zimbabwe. Latitude: 17 deg 33  $\text{m}$  S; Longitude: 029 deg 38  $\text{m}$  E. Collected June 16, 1982. Farmstore, north



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of Mapfungwe School, Mashonaland West Province. 880m.  
Cultivated. Seed.

482560. TGR 1531. Zimbabwe. Latitude: 17 deg 34  $\text{m}$  S; Longitude: 029 deg 36  $\text{m}$  E. Collected June 16, 1982. Farmstore, east of Gwidzima BC, Mashonaland West Province. 900m. Sown November, harvested April. Cultivated. Seed.
482561. TGR 1532. Zimbabwe. Latitude: 17 deg 27  $\text{m}$  S; Longitude: 029 deg 35  $\text{m}$  E. Collected June 16, 1982. Farmstore, 1 km W of Kenzamba BC, Mashonaland West Province. 900m. Sown November, harvested April. Cultivated. Seed.
482562. TGR 1541. Zimbabwe. Latitude: 17 deg 26  $\text{m}$  S; Longitude: 029 deg 31  $\text{m}$  E. Collected June 16, 1982. Farmstore, Nyare BC, Mashonaland West Province. 900m. Sown November, harvested April. Cultivated. Seed.
482563. TGR 1550. Zimbabwe. Latitude: 17 deg 33  $\text{m}$  S; Longitude: 029 deg 29  $\text{m}$  E. Collected June 16, 1982. Farmstore, Obua BC, Mashonaland West Province. 850m. Sown November, harvested April. Cultivated. Seed.
482564. TGR 1563. Zimbabwe. Latitude: 17 deg 37  $\text{m}$  S; Longitude: 030 deg 11  $\text{m}$  E. Collected June 18, 1982. Farmstore, 15km N of Murombedzi BC, Mashonaland West Province. 1200m. Sown November, harvested April. Fruits mixture of spotted green speckled and white brownish types. Cultivated. Seed.
482565. TGR 1568. Zimbabwe. Latitude: 17 deg 39  $\text{m}$  S; Longitude: 030 deg 05  $\text{m}$  E. Collected June 18, 1982. Farmstore, 2km E of Chivere BC, Mashonaland West Province. 1100m. Sown November, harvested April. Fruits creamy yellow. Local name Mhengere. Cultivated. Seed.
482566. TGR 1602. Zimbabwe. Latitude: 17 deg 46  $\text{m}$  S; Longitude: 030 deg 17  $\text{m}$  E. Collected June 18, 1982. Farmstore, Madsima EC, Mashonaland West Province. 1300m. Sown November, harvested April. Cultivated. Seed.
482567. TGR 1618. Zimbabwe. Latitude: 16 deg 53  $\text{m}$  S; Longitude: 029 deg 27  $\text{m}$  E. Collected June 21, 1982. Farmstore, 2km S of Magunje BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482568. TGR 1619. Zimbabwe. Latitude: 16 deg 56  $\text{m}$  S; Longitude: 029 deg 23  $\text{m}$  E. Collected June 21, 1982. Farmstore, south of Magunje BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482569. TGR 1631. Zimbabwe. Latitude: 16 deg 53  $\text{m}$  S; Longitude: 029 deg 28  $\text{m}$  E. Collected June 21, 1982. Farmstore, east of Magunje BC, Mashonaland West Province. 1200m. Sown

482487 TO 482588-continued

- November, harvested April. Local name Nzunzu. Cultivated. Seed.
482570. TGR 1634. Zimbabwe. Latitude: 16 deg 47 m S; Longitude: 029 deg 25 m E. Collected June 21, 1982. Farmstore, 7km N of Magunje BC, Mashonaland West Province. 1180m. Sown November, harvested April. Cultivated. Seed.
482571. TGR 1645A. Zimbabwe. Latitude: 16 deg 46 m S; Longitude: 029 deg 24 m E. Collected June 21, 1982. Farmstore, 12km NW of Magunje BC, Mashonaland West Province. 1100m. Sown November, harvested April. Fruits creamy white. Cultivated. Seed.
482572. TGR 1645E. Zimbabwe. Latitude: 16 deg 46 m S; Longitude: 029 deg 24 m E. Collected June 21, 1982. Farmstore, 12km NW of Magunje BC, Mashonaland West Province. 1050m. Sown November, harvested April. Fruits yellow. Cultivated. Seed.
482573. TGR 1645C. Zimbabwe. Latitude: 16 deg 46 m S; Longitude: 029 deg 24 m E. Collected June 21, 1982. Farmstore, 12km NW of Magunje BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482574. TGR 1648. Zimbabwe. Latitude: 16 deg 42 m S; Longitude: 029 deg 21 m E. Collected June 21, 1982. Farmstore, 27km NW of Magunje BC, Doro Township, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482575. TGR 1654. Zimbabwe. Latitude: 16 deg 57 m S; Longitude: 029 deg 28 m E. Collected June 22, 1982. Farmstore, 15km SE of Magunje BC, Mashonaland West Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482576. TGR 1662. Zimbabwe. Latitude: 16 deg 59 m S; Longitude: 029 deg 27 m E. Collected June 22, 1982. Farmstore, 2km N of Samuriwo BC, Mashonaland West Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482577. TGR 1669. Zimbabwe. Latitude: 17 deg 07 m S; Longitude: 029 deg 20 m E. Collected June 22, 1982. Farmstore, 14km SE of Samurino BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482578. TGR 1684. Zimbabwe. Latitude: 17 deg 11 m S; Longitude: 029 deg 22 m E. Collected June 22, 1982. Farmstore, Chief Mujwga, Mashonaland West Province. 1080m. Sown November, harvested April. Cultivated. Seed.
482579. TGR 1688. Zimbabwe. Latitude: 17 deg 10 m S; Longitude: 029 deg 29 m E. Collected June 22, 1982. Farmstore, 3km E

482487 TO 482588-continued

- of Chimusimbe BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482580. TGR 1696. Zimbabwe. Latitude: 17 deg 09  $\text{m S}$ ; Longitude: 029 deg 29  $\text{m E}$ . Collected June 22, 1982. Farmstore, 4km N of Chimusimbe BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482581. TGR 1701. Zimbabwe. Latitude: 17 deg 06  $\text{m S}$ ; Longitude: 029 deg 30  $\text{m E}$ . Collected June 22, 1982. Farmstore, 12km N of Chimusimbe BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482582. TGR 1805. Zimbabwe. Latitude: 17 deg 25  $\text{m S}$ ; Longitude: 031 deg 11  $\text{m E}$ . Collected June 29, 1982. Farmstore, 22km W of Manhenga BC, Mashonaland Central Province. 1200m. Sown November, harvested April. Local name Ndodo. Cultivated. Seed.
482583. TGR 1885. Zimbabwe. Latitude: 16 deg 35  $\text{m S}$ ; Longitude: 032 deg 10  $\text{m E}$ . Collected July 01, 1982. Farmstore, Nhawa School, Mashonaland Central Province. 1000m. Sown November, harvested April. Fruits white. Cultivated. Seed.
482584. TGR 1886. Zimbabwe. Latitude: 16 deg 35  $\text{m S}$ ; Longitude: 032 deg 10  $\text{m E}$ . Collected July 01, 1982. Farmstore, Nhawa School, Mashonaland Central Province. 1000m. Fruits green/yellow. Cultivated. Seed.
482585. TGR 1926. Zimbabwe. Latitude: 16 deg 12  $\text{m S}$ ; Longitude: 031 deg 42  $\text{m E}$ . Collected July 02, 1982. Farmstore, Mukumbura BC, Mashonaland Central Province. 450m. Sown November, harvested April. Fruits oval, angular to penduncle shaped, green to yellow. Cultivated. Seed.
482586. TGR 1963. Zimbabwe. Latitude: 16 deg 37  $\text{m S}$ ; Longitude: 031 deg 42  $\text{m E}$ . Collected July 03, 1982. Farmstore, east of Chawshnda BC, Mashonaland Central Province. 980m. Sown November, harvested October. Local name Ndodo. Cultivated. Seed.
482587. TGR 1982. Zimbabwe. Latitude: 16 deg 37  $\text{m S}$ ; Longitude: 031 deg 41  $\text{m E}$ . Collected July 03, 1982. Farmstore, Chawanda BC, Mashonaland Central Province. 960m. Sown November, harvested April. Cultivated. Seed.
482588. TGR 2073. Zimbabwe. Latitude: 16 deg 42  $\text{m S}$ ; Longitude: 030 deg 29  $\text{m E}$ . Collected July 08, 1982. Farmstore, 10km W of Sipclilo, Mashonaland Central Province. 1200m. Fruits elongated, ridged shape. Cultivated. Seed.

482589 TO 482593. *Cucurbita pepo* L. (Cucurbitaceae).

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482589. TGR 233. Zimbabwe. Latitude: 21 deg 06  $\mu$  S; Longitude: 032 deg 07  $\mu$  E. Collected April 21, 1982. Farmland, 11km S of Sabi Bridge, Chiredze District, Victoria Province. 400m. Fruits white. Associated with pumpkins and other weedy, bitter watermelons. Cultivated. Seed.
482590. TGR 1184. Zimbabwe. Latitude: 18 deg 36  $\mu$  S; Longitude: 036 deg 05  $\mu$  E. Collected June 01, 1982. Farmstore, 2km E of Tsanzaguru BC, Manicaland Province. 1320m. Local name Madhasana. Cultivated. Seed.
482591. TGR 1279. Zimbabwe. Latitude: 17 deg 54  $\mu$  S; Longitude: 032 deg 52  $\mu$  E. Collected June 03, 1982. Farmstore, Kute School, Manicaland Province. 900m. Sown November, harvested April. Local name Hokore. Cultivated. Seed.
482592. TGR 1280. Zimbabwe. Latitude: 17 deg 54  $\mu$  S; Longitude: 032 deg 52  $\mu$  E. Collected June 03, 1982. Farmstore, Kute School, Manicaland Province. 900m. Sown November, harvested April. Fruits hard skinned and warty. Local name Hokore. Cultivated. Seed.
482593. TGR 1298. Zimbabwe. Latitude: 18 deg 33  $\mu$  S; Longitude: 032 deg 46  $\mu$  E. Collected June 07, 1982. Farmstore, Samanga School, Manicaland Province. 850m. Local name Nyakaruswanga. Cultivated. Seed.

482594. *Eleusine coracana* (L.) Gaertn. (Poaceae) Finger millet.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

TGR 951. Zimbabwe. Latitude: 18 deg 53  $\mu$  S; Longitude: 031 deg 24  $\mu$  E. Collected May 20, 1983. Farmstore, 7km N of Sadza, Midlands Province. 1420m. Local name Mukototsi. Cultivated. Seed.

482595 TO 482597. *Fagopyrum esculentum* Moench (Polygonaceae) Buckwheat.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway,

482595 TO 482597-continued

Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy.

Received January 1983.

482595. TGR 873. Zimbabwe. Latitude: 18 deg 07  $\text{m}$  S; Longitude: 028 deg 31  $\text{m}$  E. Collected May 23, 1982. Farmstore, 14km W of Manyoni BC, Midlands Province. 1100m. Sown July. Seed used for bread making. Cultivated. Seed.
482596. TGR 1375. Zimbabwe. Latitude: 18 deg 30  $\text{m}$  S; Longitude: 032 deg 50  $\text{m}$  E. Collected June 04, 1982. Farmstore, 1 km W of Hauna BC, Manicaland Province. 800m. Sown February, harvested May. Seed used for bread making. Cultivated. Seed.
482597. TGR 1491. Zimbabwe. Latitude: 17 deg 45  $\text{m}$  S; Longitude: 029 deg 43  $\text{m}$  E. Collected June 15, 1982. Farmstore, St. Rupert's Mission, Mashonaland West Province. 900m. Cultivated. Seed.

482598 TO 482603. *Glycine max* (L.) Merr. (Fabaceae) Soybean.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy.  
Received January 1983.

482598. TGR 1492. Zimbabwe. Latitude: 17 deg 45  $\text{m}$  S; Longitude: 029 deg 43  $\text{m}$  E. Collected June 15, 1982. Farmstore, St. Rupert's Mission, Mashonaland West Province. 900m. Pods shatter. Cropped in rotation with *Arachis*. Seed not inoculated. Used for coffee, bread. Cultivated. Seed.
482599. TGR 1668. Zimbabwe. Latitude: 16 deg 59  $\text{m}$  S; Longitude: 029 deg 27  $\text{m}$  E. Collected June 22, 1982. Farmstore, 2km N of Samuriwo BC, Mashonaland West Province. 1200m. Cultivated. Seed.
482600. TGR 1676. Zimbabwe. Latitude: 17 deg 07  $\text{m}$  S; Longitude: 029 deg 20  $\text{m}$  E. Collected June 22, 1982. Farmstore, 14km S of Samuriwo BC, Mashonaland West Province. 1100m. Sown November, harvested April. Cropped in rotation with maize. Cultivated. Seed.
482601. TGR 1683. Zimbabwe. Latitude: 17 deg 11  $\text{m}$  S; Longitude: 029 deg 22  $\text{m}$  E. Collected June 22, 1982. Farmstore, Chief Mujuga, Mashonaland West Province. 1000m. Sown November, harvested April. Cultivated. Seed.
482602. TGR 1787. Zimbabwe. Latitude: 16 deg 36  $\text{m}$  S; Longitude: 029 deg 52  $\text{m}$  E. Collected June 24, 1982. Farmstore, 21km

482598 TO 482603-continued

E of Kadunga BC, Mashonaland West Province. 1100m. Sown November. Cultivated. Seed.

482603. TGR 2061. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 030 deg 45 m E. Collected July 08, 1982. Farmstore, 7km S of Sipolilo, Mashonaland Central Province. 1250m. Sown November, harvested April. Crop grown for last 10 years. Seed inoculated in 1979. Cultivated. Seed.

482604 TO 482966. *Sorghum bicolor* (L.) Moench (Poaceae) Grain sorghum.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482604. TGR 25. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 031 deg 18 m E. Collected April 08, 1982. Farmland, 4.5km SE of Makumbe, Mashonaland East Province. 1300m. Sown October, harvested April. Race Bicolor. Glumes black. Seeds white/orange. Cultivated. Seed.

482605. TGR 38. Zimbabwe. Latitude: 20 deg 23 m S; Longitude: 030 deg 40 m E. Collected April 14, 1982. Farmland, 19km E of Chibi, Chibi District, Victoria Province. 750m. Sown December, harvested April. Race Bicolor. Heads single. Weedy. Seed.

482606. TGR 39. Zimbabwe. Latitude: 20 deg 23 m S; Longitude: 030 deg 40 m E. Collected April 14, 1982. Farmland, 19km E of Chibi, Chibi District, Victoria Province. 750m. Sown December, harvested April. Race Bicolor. Stalks sweet. Cultivated. Seed.

482607. TGR 48. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 030 deg 34 m E. Collected April 14, 1982. Farmstore, 2km E of Chibi, Chibi District, Victoria Province. 750m. Seeds white. Cultivated. Seed.

482608. TGR 53. Zimbabwe. Latitude: 20 deg 12 m S; Longitude: 030 deg 26 m E. Collected April 14, 1982. Farmstore, 9km N of Chiti Do, Chibi District, Victoria Province. 950m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.

482609. TGR 60. Zimbabwe. Latitude: 20 deg 12 m S; Longitude: 030 deg 26 m E. Collected April 14, 1982. Farmstore, 9km N of Chiti Do, Chibi District, Victoria Province. 950m. Sown December, harvested April. Seeds mixed white and red. Local names Nyamb (white) and Tsweta (red). Cultivated. Seed.

482604 TO 482966-continued

482610. TGR 61. Zimbabwe. Latitude: 20 deg 12 m S; Longitude: 030 deg 26 m E. Collected April 14, 1982. Farmstore, 9km N of Chiki Do, Chibi District, Victoria Province. 950m. Sown December, harvested April. Race Bicolor. Seeds white. Local name Ngamba. Cultivated. Seed.
482611. TGR 62. Zimbabwe. Latitude: 20 deg 12 m S; Longitude: 030 deg 26 m E. Collected April 14, 1982. Farmland, 9km N of Chibi, Chibi District, Victoria Province. 950m. Sown December, harvested April. Race Bicolor. Seeds red. Local name Tswela. Cultivated. Seed.
482612. TGR 63. Zimbabwe. Latitude: 20 deg 12 m S; Longitude: 030 deg 26 m E. Collected April 14, 1982. Farmland, 9km N of Chibi, Chibi District, Victoria Province. 950m. Local selection from South African material. Local name Red Swazi. Cultivated. Seed.
482613. TGR 75. Zimbabwe. Latitude: 19 deg 34 m S; Longitude: 031 deg 17 m E. Collected April 15, 1982. Farmland, 20km NE of Gutu Do, Gutu District, Victoria Province. 1180m. Sown November, harvested April. Used for beer making. Local name Chibuka. Breeding Material. Seed.
482614. TGR 82. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 22 m E. Collected April 15, 1982. Farmland, 32km NE of Gutu Do, Gutu District, Victoria Province. 1100m. Sown December, harvested April. Race Bicolor. Cultivated. Seed.
482615. TGR 86. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmland, 36km NE of Gutu Do, Gutu District, Victoria Province. 1100m. Sown November, harvested April. Mixed races Durra and Bicolor. Seed white. Infected with long smut. Cultivated. Seed.
482616. TGR 87. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmland, 36km NE of Gutu Do, Gutu District, Victoria Province. 1100m. Sown November, harvested April. Panicles loose. Seeds white. Cultivated. Seed.
482617. TGR 88. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmland, 36km NE of Gutu Do, Gutu District, Victoria Province. 1100m. Panicles compact. Local name Chifundata. Cultivated. Seed.
482618. TGR 89. Zimbabwe. Latitude: 19 deg 32 m S; Longitude: 031 deg 25 m E. Collected April 15, 1982. Farmland, 36km NE of Gutu Do, Gutu District, Victoria Province. 1100m. Sown November, harvested April. Crossed to Fremila, an

482604 TO 482966-continued

advanced local selection. Local name Machena. Cultivated. Seed.

482619. TGR 105. Zimbabwe. Latitude: 19 deg 36 m S; Longitude: 031 deg 28 m E. Collected April 15, 1982. Farmland, 50km E of Gutu Do, Gutu District, Victoria Province. 1100m. Sown December, harvested April. Mixed Red Swazi, Fraunds and other types (local names). Cultivated. Seed.
482620. TGR 108. Zimbabwe. Latitude: 19 deg 36 m S; Longitude: 031 deg 28 m E. Collected April 15, 1982. Farmland, 50km E of Gutu Do, Gutu District, Victoria Province. 1100m. Race Bicolor/Caudatum. Cultivated. Seed.
482621. TGR 109. Zimbabwe. Latitude: 19 deg 36 m S; Longitude: 031 deg 28 m E. Collected April 15, 1982. Farmland, 50km E of Gutu Do, Gutu District, Victoria Province. 1100m. Sown December, harvested April. Heads loose, red. Race Bicolor/Caudatum. Cultivated. Seed.
482622. TGR 110. Zimbabwe. Latitude: 19 deg 36 m S; Longitude: 031 deg 28 m E. Collected April 15, 1982. Farmland, 50km E of Gutu Do, Gutu District, Victoria Province. 1100m. Sown December, harvested April. Heads compact, brown. Race Bicolor. Cultivated. Seed.
482623. TGR 111. Zimbabwe. Latitude: 19 deg 36 m S; Longitude: 031 deg 28 m E. Collected April 15, 1982. Farmland, 50km E of Gutu Do, Gutu District, Victoria Province. 1100m. Sown December, harvested April. Heads semicompact. Seeds white. Race Caudatum. Cultivated. Seed.
482624. TGR 122. Zimbabwe. Latitude: 19 deg 47 m S; Longitude: 031 deg 40 m E. Collected April 16, 1982. Farmland, 20km N of Bikita Do, Bikita District, Victoria Province. 1050m. Sown December, harvested April. Mixed Chifumbaba (white) and Tswete (red) types. Cultivated. Seed.
482625. TGR 131. Zimbabwe. Latitude: 20 deg S; Longitude: 031 deg 52 m E. Collected April 16, 1982. Farmland, 43km E of Bikita Do, Bikita District, Victoria Province. 930m. Sown September, harvested April. Seeds white. Race Durra. Local name Chetacheyne. Cultivated. Seed.
482626. TGR 132. Zimbabwe. Latitude: 20 deg S; Longitude: 031 deg 52 m E. Collected April 16, 1982. Farmland, 43km E of Bikita Do, Bikita District, Victoria Province. 930m. Sown September, harvested April. Seeds white. Race Caudatum/Bicolor. Local name Ruzangawaye. Cultivated. Seed.
482627. TGR 137. Zimbabwe. Latitude: 20 deg 24 m S; Longitude: 031 deg 44 m E. Collected April 17, 1982. Farmland, 1 km SW of Magaisa, Bikita District, Victoria Province. 660m.



482604 TO 482966-continued

Sown November, harvested April. Heads loose. Seed white.  
Local name Muchaini. Cultivated. Seed.

482628. TGR 147. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 51  $\mu$  E. Collected April 17, 1982. Farmland, 12km S of Angus, near Magaisa, Bikita District, Victoria Province. 650m. Sown October, harvested April. Stalks sweet, used for chewing. Cultivated. Seed.
482629. TGR 151. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 51  $\mu$  E. Collected April 17, 1982. Farmland, 12km S of Angus, near Magaisa, Bikita District, Victoria Province. 650m. Sown October, harvested April. Race Caudatum. Cultivated. Seed.
482630. TGR 153. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 52  $\mu$  E. Collected April 17, 1982. Farmland, 12km S of Angus, near Magaisa, Bikita District, Victoria Province. 650m. Sown October, harvested April. Cultivated. Seed.
482631. TGR 154. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 52  $\mu$  E. Collected April 17, 1982. Farmland, 13km S of Angus, near Magaisa, Bikita District, Victoria Province. 650m. Sown October, harvested April. Associated with Pearl Millet. Cultivated. Seed.
482632. TGR 156. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 52  $\mu$  E. Collected April 17, 1982. Farmland, 13km S of Angus, near Magaisa, Bikita District, Victoria Province. 650m. Sown October, harvested April. Seeds chalky white. Cultivated. Seed.
482633. TGR 157. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 52  $\mu$  E. Collected April 17, 1982. Farmland, 13km S of Angus, near Magaisa, Bikita District, Victoria Province. 650m. Sown November, harvested April. Heads compact. Seeds red. Local name Mutode. Cultivated. Seed.
482634. TGR 158. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 52  $\mu$  E. Collected April 17, 1982. Farmland, 13km S of Magaisa, Bikita District, Victoria Province. 650m. Sown November, harvested April. Local name Muchaini. Cultivated. Seed.
482635. TGR 159. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 52  $\mu$  E. Collected April 17, 1982. Farmland, 13km S of Magaisa, Bikita District, Victoria Province. 650m. Sown November, harvested April. Local name Mhando. Cultivated. Seed.
482636. TGR 161. Zimbabwe. Latitude: 20 deg 26  $\mu$  S; Longitude: 031 deg 52  $\mu$  E. Collected April 17, 1982. Farmland, 13km

482604 TO 482966-continued

- S of Magaisa, Bikita District, Victoria Province. 650m. Sown November, harvested April. Local name Masintiri. Cultivated. Seed.
482637. TGR 176. Zimbabwe. Latitude: 20 deg 17 m S; Longitude: 031 deg 05 m E. Collected April 19, 1982. Farmland, 7km SE of Kyle Dam Wall, Victoria Province. 1000m. Plants uniform. Race Bicolor. Cultivated. Seed.
482638. TGR 184. Zimbabwe. Latitude: 20 deg 25 m S; Longitude: 031 deg 03 m E. Collected April 19, 1982. Anthill, 27km S of Dombodema, near Kyle Dam Wall, Victoria Province. 800m. Sown October, harvested April. Seeds white. Local name Pfunsata. Cultivated. Seed.
482639. TGR 185. Zimbabwe. Latitude: 20 deg 25 m S; Longitude: 031 deg 03 m E. Collected April 19, 1982. Farmland, 28km S of Dombodema, near Kyle Dam Wall, Victoria Province. 800m. Sown October, harvested April. Cultivated. Seed.
482640. TGR 191. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 031 deg 09 m E. Collected April 19, 1982. Farmland, 71km S of Kyle Dam Wall, Victoria Province. 750m. Sown November, harvested April. Improved type. Race Durra. Cultivated. Seed.
482641. TGR 195. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 031 deg 09 m E. Collected April 19, 1982. Farmland, 72km S of Kyle Dam Wall, Victoria Province. 700m. Sown November, harvested April. Used for sadza and beer. Cultivated. Seed.
482642. TGR 196. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 031 deg 09 m E. Collected April 19, 1982. Farmland, 72km S of Kyle Dam Wall, Victoria Province. 900m. Sown November, harvested April. Local name Mungore. Cultivated. Seed.
482643. TGR 197. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 031 deg 09 m E. Collected April 19, 1982. Farmland, 72km S of Kyle Dam Wall, Victoria Province. 700m. Sown November, harvested April. Cultivated. Seed.
482644. TGR 198. Zimbabwe. Latitude: 20 deg 42 m S; Longitude: 031 deg 05 m E. Collected April 19, 1982. Farmland, 99km S of Kyle Dam Wall, Victoria District, Victoria Province. 680m. Sown November, harvested April. Seeds corneous, white. Race Kafir. Local name Chibedhlani. Cultivated. Seed.
482645. TGR 199. Zimbabwe. Latitude: 20 deg 42 m S; Longitude: 031 deg 05 m E. Collected April 19, 1982. Farmland, 99km S of Kyle Dam Wall, Victoria District, Victoria Province.

482604 TO 482966-continued

- 680m. Sown November, harvested April. Seeds white. Race Caudatum. Local name Fumbata. Cultivated. Seed.
482646. TGR 200. Zimbabwe. Latitude: 20 deg 42 m S; Longitude: 031 deg 05 m E. Collected April 19, 1982. Farmland, 99km S of Kyle Dam Wall, Victoria District, Victoria Province. 680m. Sown November, harvested April. Possible cross between FI 482644 and PI 482645. Seeds white. Race Kafir/Caudatum. Cultivated. Seed.
482647. TGR 205A. Zimbabwe. Latitude: 20 deg 55 m S; Longitude: 030 deg 43 m E. Collected April 20, 1982. Farmland, 10km SW of Lundi Bridge, Nunametsi District, Victoria Province. 550m. Harvested April. Cultivated. Seed.
482648. TGR 205B. Zimbabwe. Latitude: 20 deg 55 m S; Longitude: 030 deg 43 m E. Collected April 20, 1982. Farmland, 10km SW of Lundi Bridge, Nunametsi District, Victoria Province. 550m. Harvested April. Cultivated. Seed.
482649. TGR 206. Zimbabwe. Latitude: 20 deg 55 m S; Longitude: 030 deg 43 m E. Collected April 20, 1982. Farmland, 10km SW of Lundi Bridge, Nuanetsi District, Victoria Province. 550m. Sown December, harvested May. Cultivated. Seed.
482650. TGR 210A. Zimbabwe. Latitude: 20 deg 56 m S; Longitude: 030 deg 38 m E. Collected April 20, 1982. Farmland, 2km SW of Neshuro, Nuawetsi District, Victoria Province. 600m. Sown October, harvested April. Cultivated. Seed.
482651. TGR 210B. Zimbabwe. Latitude: 20 deg 56 m S; Longitude: 030 deg 38 m E. Collected April 20, 1982. Farmland, 2km SW of Neshuro, Nuawetsi District, Victoria Province. 600m. Sown October, harvested April. Local name Rundende. Cultivated. Seed.
482652. TGR 210C. Zimbabwe. Latitude: 20 deg 56 m S; Longitude: 030 deg 38 m E. Collected April 20, 1982. Farmland, 2km SW of Neshuro, Nuawetsi District, Victoria Province. 600m. Sown October. Local name Chivenzani. Cultivated. Seed.
482653. TGR 210D. Zimbabwe. Latitude: 20 deg 56 m S; Longitude: 030 deg 38 m E. Collected April 20, 1982. Farmland, 2km SW of Neshuro, Nuawetsi District, Victoria Province. 600m. Sown October, harvested April. Local name Ngaima. Cultivated. Seed.
482654. TGR 216A. Zimbabwe. Latitude: 21 deg 13 m S; Longitude: 030 deg 21 m E. Collected April 20, 1982. Farmstore, 65km S of Neshuro, Nuanetsi District, Victoria Province. 650m. Sown October, harvested April. Local name Chifumbata. Cultivated. Seed.

482604 TO 482966-continued

482655. TGR 216B. Zimbabwe. Latitude: 21 deg 13 m S; Longitude: 030 deg 21 m E. Collected April 20, 1982. Farmstore, 65km S of Neshuro, Nuanetsi District, Victoria Province. 650m. Sown October, harvested April. Local name Rundende. Cultivated. Seed.
482656. TGR 222. Zimbabwe. Latitude: 20 deg 17 m S; Longitude: 030 deg 25 m E. Collected April 20, 1982. Farmstore, 85km S of Neshuro, Victoria Province. 580m. Stalk sweet. Local name Garireham. Cultivated. Seed.
482657. TGR 223A. Zimbabwe. Latitude: 20 deg 17 m S; Longitude: 030 deg 28 m E. Collected April 20, 1982. Farmland, 84km S of Neshuro, Victoria Province. 580m. Sown October. Race Caudatum. Local name Rundende. Cultivated. Seed.
482658. TGR 223B. Zimbabwe. Latitude: 20 deg 17 m S; Longitude: 030 deg 28 m E. Collected April 20, 1982. Farmland, 84km S of Neshuro, Victoria Province. 580m. Sown October, harvested April. Race Kafir. Seeds corneous. Local name Chitate. Cultivated. Seed.
482659. TGR 225A. Zimbabwe. Latitude: 20 deg 07 m S; Longitude: 032 deg 08 m E. Collected April 21, 1982. Farmland, 20km S of Sabi-Bridge, Chiredze District, Victoria Province. 350m. Sown November, harvested April. Local name Mhonda. Cultivated. Seed.
482660. TGR 225B. Zimbabwe. Latitude: 21 deg 07 m S; Longitude: 032 deg 08 m E. Collected April 21, 1982. Farmland, 20km S of Sabi-Bridge, Chiredze District, Victoria Province. 350m. Sown November, harvested April. Local name Mhonda. Cultivated. Seed.
482661. TGR 230. Zimbabwe. Latitude: 21 deg 07 m S; Longitude: 032 deg 08 m E. Collected April 21, 1982. Farmland, 20km S of Sabi-Bridge, Chiredze District, Victoria Province. 350m. Sown November, harvested April. Local name Tsweta. Cultivated. Seed.
482662. TGR 231. Zimbabwe. Latitude: 21 deg 07 m S; Longitude: 032 deg 08 m E. Collected April 21, 1982. Farmland, 20km S of Sabi-Bridge, Chiredze District, Victoria Province. 350m. Sown November, harvested April. Resistant to drought. Race Kafir. Used for beer and sadza. Local name Mutode. Cultivated. Seed.
482663. TGR 236A. Zimbabwe. Latitude: 20 deg 48 m S; Longitude: 032 deg 11 m E. Collected April 21, 1982. Farmland, 29km N of Sabi-Bridge, Chiredzi District, Victoria Province. 410m. Sown November, harvested April. Race Caudatum. Local name Muchaini. Cultivated. Seed.

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482664. TGR 236B. Zimbabwe. Latitude: 20 deg 48 m S; Longitude: 032 deg 11 m E. Collected April 21, 1982. Farmland, 29km N of Sabi-Bridge, Chiredzi District, Victoria Province. 410m. Sown November, harvested April. Race Kafir. Local name Mhonde. Cultivated. Seed.
482665. TGR 236C. Zimbabwe. Latitude: 20 deg 48 m S; Longitude: 032 deg 11 m E. Collected April 21, 1982. Farmland, 29km N of Sabi-Bridge, Chiredzi District, Victoria Province. 410m. Sown November, harvested April. Local name Chikombe. Cultivated. Seed.
482666. TGR 242. Zimbabwe. Latitude: 22 deg 05 m S; Longitude: 031 deg 26 m E. Collected April 22, 1982. Farmland, 2km E of Malipati, Chiredze District, Victoria Province. 340m. Local name Gangara. Cultivated. Seed.
482667. TGR 243. Zimbabwe. Latitude: 22 deg 05 m S; Longitude: 031 deg 26 m E. Collected April 22, 1982. Farmland, 3km E of Malipati, Chiredze District, Victoria Province. 340m. Cultivated. Seed.
482668. TGR 245A. Zimbabwe. Latitude: 22 deg 50 m S; Longitude: 031 deg 12 m E. Collected April 22, 1982. Farmstore, 25km N of Malipati, Chirdeze District, Victoria Province. 340m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482669. TGR 245B. Zimbabwe. Latitude: 22 deg 50 m S; Longitude: 031 deg 12 m E. Collected April 22, 1982. Farmstore, 25km N of Malipati, Chirdeze District, Victoria Province. 340m. Sown November, harvested April. Race Kafir. Local name Gangara. Cultivated. Seed.
482670. TGR 245C. Zimbabwe. Latitude: 22 deg 50 m S; Longitude: 031 deg 12 m E. Collected April 22, 1982. Farmstore, 25km N of Malipati, Chirdeze District, Victoria Province. 340m. Sown November, harvested April. Local name Chitichi. Cultivated. Seed.
482671. TGR 245D. Zimbabwe. Latitude: 22 deg 50 m S; Longitude: 031 deg 12 m E. Collected April 22, 1982. Farmstore, 25km N of Malipati, Chirdeze District, Victoria Province. 340m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482672. TGR 249A. Zimbabwe. Latitude: 22 deg 41 m S; Longitude: 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Local name Mandhlovu. Cultivated. Seed.
482673. TGR 249B. Zimbabwe. Latitude: 22 deg 41 m S; Longitude:

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- 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Local name Tshalani. Cultivated. Seed.
482674. TGR 249C. Zimbabwe. Latitude: 22 deg 41 m S; Longitude: 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Local name Red Swazi. Cultivated. Seed.
482675. TGR 249D. Zimbabwe. Latitude: 22 deg 41 m S; Longitude: 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Race Kafir. Cultivated. Seed.
482676. TGR 249E. Zimbabwe. Latitude: 22 deg 41 m S; Longitude: 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Local name Chibendlani. Cultivated. Seed.
482677. TGR 249F. Zimbabwe. Latitude: 22 deg 41 m S; Longitude: 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Stalks sweet. Cultivated. Seed.
482678. TGR 249G. Zimbabwe. Latitude: 22 deg 41 m S; Longitude: 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Local name Gangara. Cultivated. Seed.
482679. TGR 249H. Zimbabwe. Latitude: 22 deg 41 m S; Longitude: 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Local name Chitichi. Cultivated. Seed.
482680. TGR 249I. Zimbabwe. Latitude: 22 deg 41 m S; Longitude: 031 deg 19 m E. Collected April 22, 1982. Farmstore, 54km N of Malapati, Chiredze District, Victoria Province. 400m. Stalks sweet. Cultivated. Seed.
482681. TGR 250A. Zimbabwe. Latitude: 21 deg 21 m S; Longitude: 031 deg 47 m E. Collected April 22, 1982. Farmland, 21km S of Lundi Bridge, Chiredze District, Victoria Province. 350m. Sown November, harvested April. Local name Gangara. Cultivated. Seed.
482682. TGR 250B. Zimbabwe. Latitude: 21 deg 21 m S; Longitude: 031 deg 47 m E. Collected April 22, 1982. Farmland, 21km S of Lundi Bridge, Chiredze District, Victoria Province. 350m. Sown November, harvested April. Race Caudatum. Cultivated. Seed.
482683. TGR 257A. Zimbabwe. Latitude: 20 deg 31 m S; Longitude: 031 deg 31 m E. Collected April 23, 1982. Farmland, 36km

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- SE of Zaka, Ndanoa District, Victoria Province. 570m.  
Cultivated. Seed.
482684. TGR 257B. Zimbabwe. Latitude: 20 deg 31 m S; Longitude:  
031 deg 31 m E. Collected April 23, 1982. Farmstore, 36km  
SE of Zaka, Ndanoa District, Victoria Province. 570m.  
Cultivated. Seed.
482685. TGR 272. Zimbabwe. Latitude: 20 deg 33 m S; Longitude:  
030 deg 42 m E. Collected April 26, 1982. Farmland, 13km  
S of Turgwana Bridge, Victoria Province. 760m. Race Kafir.  
Stalks sweet. Local name Mungore. Cultivated. Seed.
482686. TGR 280A. Zimbabwe. Latitude: 20 deg 36 m S; Longitude:  
030 deg 40 m E. Collected April 26, 1982. Farmland, 6km W  
of Beresena Junction, Victoria Province. 750m. Race Kafir.  
Heads compact. Seeds corneous. Local name Chiponda.  
Cultivated. Seed.
482687. TGR 280B. Zimbabwe. Latitude: 20 deg 36 m S; Longitude:  
030 deg 40 m E. Collected April 26, 1982. Farmland, 6km W  
of Beresena Junction, Victoria Province. 750m. Race Kafir.  
Seeds large, white. Local name Vendyane. Cultivated. Seed.
482688. TGR 286. Zimbabwe. Latitude: 20 deg 37 m S; Longitude:  
030 deg 37 m E. Collected April 26, 1982. Farmstore, 11km  
W of Berejena Branch, Victoria Province. 740m. Cultivated.  
Seed.
482689. TGR 287A. Zimbabwe. Latitude: 20 deg 40 m S; Longitude:  
030 deg 38 m E. Collected April 26, 1982. Farmstore, 19km  
SW of Berehena Branch, Victoria Province. 720m. Local  
name Vedyane. Cultivated. Seed.
482690. TGR 287B. Zimbabwe. Latitude: 20 deg 40 m S; Longitude:  
030 deg 38 m E. Collected April 26, 1982. Farmstore, 19km  
SW of Berehena Branch, Victoria Province. 720m. Local  
name Jayta. Cultivated. Seed.
482691. TGR 293. Zimbabwe. Latitude: 20 deg 45 m S; Longitude:  
030 deg 43 m E. Collected April 26, 1982. Farmland, 32km  
S of Tugwana Bridge, Victoria Province. 720m. Mixture of  
Chibulanye and Chifumbala (local names). Cultivated. Seed.
482692. TGR 333. Zimbabwe. Latitude: 20 deg 25 m S; Longitude:  
031 deg 25 m E. Collected April 30, 1982. Farmland, 10km  
S of Zaka, Victoria Province. 720m. Self propagating.  
Seeds completely enclosed in glumes. Stalks sweet.  
Cultivated. Seed.
482693. TGR 334. Zimbabwe. Latitude: 20 deg 25 m S; Longitude:  
031 deg 25 m E. Collected April 30, 1982. Farmland, 10km  
S of Zaka, Victoria Province. 720m. Cultivated. Seed.

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482694. TGR 341. Zimbabwe. Latitude: 20 deg 27 ' S; Longitude: 031 deg 20 ' E. Collected April 30, 1982. Farmland, 23km SW of Zaka, Victoria Province. 750m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482695. TGR 351. Zimbabwe. Latitude: 20 deg 27 ' S; Longitude: 031 deg 20 ' E. Collected April 30, 1982. Farmland, 23km SW of Zaka, Victoria Province. 720m. Cultivated. Seed.
482696. TGR 351A. Zimbabwe. Latitude: 20 deg 27 ' S; Longitude: 031 deg 20 ' E. Collected April 30, 1982. Farmland, 23km SW of Zaka, Victoria Province. 720m. Race Kafir. Seeds white, corneous. Heads compact. Local name Fumbala. Cultivated. Seed.
482697. TGR 351B. Zimbabwe. Latitude: 20 deg 27 ' S; Longitude: 031 deg 20 ' E. Collected April 30, 1982. Farmland, 23km SW of Zaka, Victoria Province. 720m. Race Caudatum. Seeds white, heads loose. Local name Rundeude. Cultivated. Seed.
482698. TGR 354. Zimbabwe. Latitude: 20 deg 28 ' S; Longitude: 031 deg 22 ' E. Collected April 30, 1982. Farmland, 38km SW of Zaka, Victoria Province. 850m. Stalks sweet. Cultivated. Seed.
482699. TGR 370. Zimbabwe. Latitude: 20 deg 13 ' S; Longitude: 031 deg 24 ' E. Collected April 30, 1982. Farmstore, 22km N of Zaka, Victoria Province. 960m. Stalks sweet. Cultivated. Seed.
482700. TGR 371. Zimbabwe. Latitude: 20 deg 13 ' S; Longitude: 031 deg 24 ' E. Collected April 30, 1982. Farmstore, 22km N of Zaka, Victoria Province. 960m. Races Bicolor and Caudatum. Cultivated. Seed.
482701. TGR 378. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Hwange (Wankie), Matebeleland North Province. Local name Tsweta. Cultivated. Seed.
482702. TGR 380. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Hwange (Wankie), Matebeleland North Province. Local name Mauakayaka. Cultivated. Seed.
482703. TGR 386. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Ya-Thi, Matebeleland North Province. Local name Tsweta. Cultivated. Seed.
482704. TGR 391. Zimbabwe. Latitude: 20 deg 13 ' S; Longitude: 031 deg 24 ' E. Collected May 01, 1982. Bulawayo Show, E of Hwange (Wankie), Matebeleland North Province. Local name Malandisa. Cultivated. Seed.



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482705. TGR 392. Zimbabwe. Collected May 01, 1982. Bulawayo Show, E of Hwange (Wankie), Matebeleland North Province. Local name Tsweta. Cultivated. Seed.
482706. TGR 396. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Zvishabane (Shaabani), Midlands South Province. Local name Tsweta. Cultivated. Seed.
482707. TGR 397. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Zvishabane (Shaban), Midlands South Province. Local name Chifumbata. Cultivated. Seed.
482708. TGR 398. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Zvishabane (Shaban), Midlands South Province. Local name Rutsutura. Cultivated. Seed.
482709. TGR 399. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Zvishabane (Shaban), Midlands South Province. Local name Sibedlane. Cultivated. Seed.
482710. TGR 410. Zimbabwe. Collected May 01, 1982. Bulawayo Show, N of Nkayi, Matebeleland North Province. Cultivated. Seed.
482711. TGR 411. Zimbabwe. Collected May 01, 1982. Bulawayo Show, N of Nkayi, Matebeleland North Province. Local name Impala. Cultivated. Seed.
482712. TGR 415. Zimbabwe. Collected May 01, 1982. Bulawayo Show, N of Bulawayo, Matebeleland North Province. Local name Malandisa. Cultivated. Seed.
482713. TGR 417. Zimbabwe. Collected May 01, 1982. Bulawayo Show, S of Nkayi, Matebeleland North Province. Local name Impala. Cultivated. Seed.
482714. TGR 423. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Chilimanzi, Midlands East Province. Cultivated. Seed.
482715. TGR 428. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Chilimanzi, Midlands East Province. Cultivated. Seed.
482716. TGR 430. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Plumtree, Matebeleland West Province. Local name Tsweta. Cultivated. Seed.
482717. TGR 434. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Binga, Matebeleland North Province. Cultivated. Seed.

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482718. TGR 441. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Belingwe, Midlands South Province. Cultivated. Seed.
482719. TGR 442. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Belingwe, Midlands South Province. Local name Tsweta. Cultivated. Seed.
482720. TGR 443. Zimbabwe. Latitude: 20 deg 13 m S; Longitude: 031 deg 24 m E. Collected May 01, 1982. Bulawayo Show, Tsholotsho, Matebeleland West Province. Local name Tsweta. Cultivated. Seed.
482721. TGR 447. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Tsholotsho, Matebeleland West Province. Local name Malandisa. Cultivated. Seed.
482722. TGR 448. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Tsholotsho, Matebeleland West Province. Local name Sigobane. Cultivated. Seed.
482723. TGR 449. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Tsholotsho, Matebeleland West Province. Local name Iwusi. Cultivated. Seed.
482724. TGR 455. Zimbabwe. Latitude: 20 deg 13 m S; Longitude: 031 deg 24 m E. Collected May 01, 1982. Bulawayo Show, Lupane, Matebeleland North Province. Local name Isifumbata. Cultivated. Seed.
482725. TGR 456. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Lupane, Matebeleland North Province. Local name Tsvete. Cultivated. Seed.
482726. TGR 457. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Lupane, Matebeleland North Province. Local name Umayakayaka. Cultivated. Seed.
482727. TGR 466. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Selukwe, Midlands South Province. Local name Chibuku. Cultivated. Seed.
482728. TGR 467. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Selukwe, Midlands South Province. Local name Tsveta. Cultivated. Seed.
482729. TGR 479. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Inkosikazi, Matebeleland North Province. Cultivated. Seed.
482730. TGR 480. Zimbabwe. Collected May 01, 1982. Bulawayo Show, Inkosikazi, Matebeleland North Province. Cultivated. Seed.

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482731. TGR 487. Zimbabwe. Latitude: 20 deg 03 n S; Longitude: 032 deg 52 n E. Collected May 05, 1982. Backyard, 1 km E of Gata Rest Camp, Manicaland Province. 700m. Sown September, harvested May. Seed completely covered by glumes. Used for sadza and beer. Local name Chikota. Cultivated. Seed.
482732. TGR 497. Zimbabwe. Latitude: 20 deg 02 n S; Longitude: 032 deg 54 n E. Collected May 05, 1982. Farmland, 3km E of Gata Rest Camp, Manicaland Province. 700m. Sown November, harvested May. Associated with cowpea. Stalk borer present. Cultivated. Seed.
482733. TGR 497A. Zimbabwe. Latitude: 20 deg 02 n S; Longitude: 032 deg 54 n E. Collected May 05, 1982. Farmland, 3km E of Gata Rest Camp, Manicaland Province. 700m. Sown November, harvested May. Race Bicolor. Heads open. Local name Mungondonpondo. Cultivated. Seed.
482734. TGR 497B. Zimbabwe. Latitude: 20 deg 02 n S; Longitude: 032 deg 54 n E. Collected May 05, 1982. Farmland, 3km E of Gata Rest Camp, Manicaland Province. 700m. Sown November, harvested May. Race Kafir. Heads closed. Stalk borer present. Local Gwengwere. Cultivated. Seed.
482735. TGR 501. Zimbabwe. Latitude: 20 deg 04 n S; Longitude: 032 deg 47 n E. Collected May 05, 1982. Farmland, 3.5km from Gata Rest Camp, Manicaland Province. 700m. Sown December, harvested May. Heads closed subtending stems goosenecked. Local name Chikota. Cultivated. Seed.
482736. TGR 505. Zimbabwe. Latitude: 20 deg 04 n S; Longitude: 032 deg 50 n E. Collected May 05, 1982. Farmland, 7km SE of Gata Rest Camp, Manicaland Province. 750m. Sown November, harvested May. Mixed Chikota (Kafir/Caudatum races) and Gwengwere (race Bicolor). Used for sadza and beer. Cultivated. Seed.
482737. TGR 505A. Zimbabwe. Latitude: 20 deg 04 n S; Longitude: 032 deg 50 n E. Collected May 05, 1982. Farmland, 7km SE of Gata Rest Camp, Manicaland Province. 750m. Sown November, harvested May. Races Kafir and Caudatum. Subtending stem goosenecked. Used for sadza. Local name Chikota. Cultivated. Seed.
482738. TGR 505B. Zimbabwe. Latitude: 20 deg 04 n S; Longitude: 032 deg 50 n E. Collected May 05, 1982. Farmland, 7km SE of Gata Rest Camp, Manicaland Province. 750m. Sown November, harvested May. Race bicolor. Used for sadza and beer. Local name Gwengwere. Cultivated. Seed.
482739. TGR 517. Zimbabwe. Latitude: 20 deg 05 n S; Longitude:

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- 032 deg 52 m E. Collected May 06, 1982. Backyard, .5km E of Rusitu Mission, Manicaland Province. 1000m. Sown September, harvested May. Heads compact. Race Kafir. Cultivated. Seed.
482740. TGR 523. Zimbabwe. Latitude: 20 deg 01 m S; Longitude: 032 deg 55 m E. Collected May 06, 1982. Farmland, 5km E of Rusitu Mission, Manicaland Province. 980m. Sown November, harvested May. Race Kafir. Local name Chikota. Cultivated. Seed.
482741. TGR 527. Zimbabwe. Latitude: 20 deg 01 m S; Longitude: 032 deg 57 m E. Collected May 06, 1982. Farmstore, 13km E of Rusitu Mission, Manicaland Province. 1020m. Sown November, harvested May. Subtending head stem goosenecked. Local name Chikota. Cultivated. Seed.
482742. TGR 536. Zimbabwe. Latitude: 20 deg 02 m S; Longitude: 032 deg 55 m E. Collected May 06, 1982. Farmland, 1 km S of Muchira BC, Manicaland Province. 840m. Sown November, harvested May. Local name Chikota. Cultivated. Seed.
482743. TGR 546. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Farmland, 1.7km W of Mhedziwa BC, Manicaland Province. 1030m. Sown November, harvested May. Local name Zangawaya. Cultivated. Seed.
482744. TGR 547. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Farmland, 1.7km W of Mhedziwa BC, Manicaland Province. 1030m. Seeds shatter readily. Cultivated. Seed.
482745. TGR 548. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Farmland, 1.7km W of Mhedziwa BC, Manicaland Province. 1030m. Race Kafir. Seeds white, corneous. Heads compact. Cultivated. Seed.
482746. TGR 556A. Zimbabwe. Latitude: 19 deg 34 m S; Longitude: 032 deg 37 m E. Collected May 07, 1982. Farmstore, 5.2km W of Mhedziwa BC, Manicaland Province. 1050m. Sown November, harvested April. Race Kafir. Seeds red. Local name Tsweta. Cultivated. Seed.
482747. TGR 556B. Zimbabwe. Latitude: 19 deg 34 m S; Longitude: 032 deg 37 m E. Collected May 07, 1982. Farmstore, 5.2km W of Mhedziwa BC, Manicaland Province. 1050m. Sown November, harvested April. Race Kafir. Seeds white. Local name Dewe. Cultivated. Seed.
482748. TGR 558. Zimbabwe. Latitude: 19 deg 34 m S; Longitude: 032 deg 37 m E. Collected May 07, 1982. Farmland, 5.2km W of Mhedziwa BC, Manicaland Province. 1050m. Local name

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Mururu. Cultivated. Seed.

482749. TGR 565A. Zimbabwe. Latitude: 19 deg 44 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Farmstore, 41km SE of Wengezi Junction, Manicaland Province. 780m. Face Kafir. Seeds red. Local name Tsweta. Cultivated. Seed.
482750. TGR 565B. Zimbabwe. Latitude: 19 deg 44 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Farmstore, 41km SE of Wengezi Junction, Manicaland Province. 780m. Face Kafir. Seeds white, corneous. Local name Chimhondo. Cultivated. Seed.
482751. TGR 565C. Zimbabwe. Latitude: 19 deg 44 m S; Longitude: 032 deg 34 m E. Collected May 07, 1982. Farmstore, 41km SE of Wengezi Junction, Manicaland Province. 780m. Face Kafir. Seeds white. Cultivated. Seed.
482752. TGR 572. Zimbabwe. Latitude: 19 deg 41 m S; Longitude: 032 deg 57 m E. Collected May 08, 1982. Farmland, 3.2km NE of Chikukwa BC, Manicaland Province. 1500m. Sown November. Bird resistant. Local name Chikota. Cultivated. Seed.
482753. TGR 577. Zimbabwe. Latitude: 19 deg 42 m S; Longitude: 032 deg 56 m E. Collected May 08, 1982. Farmland, .2km N of Chikukwa BC, Manicaland Province. 1200m. Cultivated. Seed.
482754. TGR 577A. Zimbabwe. Latitude: 19 deg 42 m S; Longitude: 032 deg 56 m E. Collected May 08, 1982. Farmland, .2km N of Chikukwa BC, Manicaland Province. 1200m. Local name Chikota. Cultivated. Seed.
482755. TGR 577B. Zimbabwe. Latitude: 19 deg 42 m S; Longitude: 032 deg 56 m E. Collected May 08, 1982. Farmland, .2km N of Chikukwa BC, Manicaland Province. 1200m. Local name Tsweta. Cultivated. Seed.
482756. TGR 587. Zimbabwe. Latitude: 20 deg 18 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Farmstore, 1.8km NE of Tamandau BC, Manicaland Province. 700m. Sown November, harvested May. Local name Chimutode. Cultivated. Seed.
482757. TGR 609. Zimbabwe. Latitude: 20 deg 15 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Farmstore, 1.9km S of Tamandayi BC, Manicaland Province. 700m. Sown November, harvested May. Local name Chikombe. Cultivated. Seed.
482758. TGR 610. Zimbabwe. Latitude: 20 deg 15 m S; Longitude: 032 deg 49 m E. Collected May 10, 1982. Farmstore, 1.9km

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- S of Tamandayi BC, Manicaland Province. 700m. Sown November, harvested May. Local name Chikota. Cultivated. Seed.
482759. TGR 627. Zimbabwe. Latitude: 20 deg 22 m S; Longitude: 032 deg 46 m E. Collected May 10, 1982. Farmstore, 17.8km SW of Tamandayi BC, Manicaland Province. 900m. Race Kafir. Stalks sweet. Cultivated. Seed.
482760. TGR 633. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 032 deg 43 m E. Collected May 11, 1982. Farmstore, 1.7km S of Mt. Selinda Mission, Manicaland Province. 980m. Race Kafir. Stalks sweet. Seeds red. Cultivated. Seed.
482761. TGR 635. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 032 deg 44 m E. Collected May 11, 1982. Farmstore, 3.8km S of Mt. Selinda Mission, Manicaland Province. 900m. Sown November. Mixed with some Red Swazi. Cultivated. Seed.
482762. TGR 640. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 032 deg 45 m E. Collected May 11, 1982. Farmland, 8.2km S of Mt. Selinda Mission, Manicaland Province. 860m. Sown November. Local name Gangara. Cultivated. Seed.
482763. TGR 653. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 032 deg 45 m E. Collected May 11, 1982. Farmstore, 8.3km S of Mt. Selinda Mission, Manicaland Province. 860m. Cultivated. Seed.
482764. TGR 663. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 029 deg 07 m E. Collected May 17, 1982. Farmstore, 25km W of Crossroads, Midlands Province. 1000m, Sown November, harvested April. Stalks sweet, used for chewing. Cultivated. Seed.
482765. TGR 694. Zimbabwe. Latitude: 18 deg 47 m S; Longitude: 029 deg 26 m E. Collected May 18, 1982. Farmstore, 22.6km E of Zhombe BC, Midlands Province. 1150m. Sown November, harvested April. Stalks sweet. Juice eaten. Local name Maboyana. Cultivated. Seed.
482766. TGR 705. Zimbabwe. Latitude: 18 deg 40 m S; Longitude: 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Seeds dark red. Bird resistant. Local name Matserendende. Cultivated. Seed.
482767. TGR 706. Zimbabwe. Latitude: 18 deg 40 m S; Longitude: 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Race Bicolor. Stalks Sweet. Local name Mavoyana. Cultivated. Seed.
482768. TGR 707. Zimbabwe. Latitude: 18 deg 40 m S; Longitude:

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- 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Race Kafir. Stalk sweet. Local name Bedhlana. Cultivated. Seed.
482769. TGR 708. Zimbabwe. Latitude: 18 deg 40 m S; Longitude: 029 deg 22 m E. Collected May 18, 1982. Farmstore, 1 km E of Zhombe BC, Midlands Province. 1130m. Stalk sweet. Local name Umkumbe. Cultivated. Seed.
482770. TGR 714. Zimbabwe. Latitude: 18 deg 41 m S; Longitude: 029 deg 19 m E. Collected May 18, 1982. Farmstore, 4.5km S of Zhombe BC, Midlands Province. 1130m. Sown November. Local name Tsweta. Cultivated. Seed.
482771. TGR 720. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmstore, 28km N of Zhombe BC, Midlands Province. 1080m. Sown December. Local name Tsweta. Cultivated. Seed.
482772. TGR 733. Zimbabwe. Latitude: 18 deg 35 m S; Longitude: 029 deg 25 m E. Collected May 18, 1982. Farmstore, 28km N of Zhombe BC, Midlands Province. 1080m. Seeds mixed red and white. Stalks sweet, chewed. Cultivated. Seed.
482773. TGR 738. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Cultivated. Seed.
482774. TGR 738A. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Heads compact, bristled. Local name Ngumane. Cultivated. Seed.
482775. TGR 738B. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Heads semi-compact, bristled. Glumes black. Seeds white. Local name Ngumane. Cultivated. Seed.
482776. TGR 738C. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Heads semi-compact. Glumes black. Local name Ngumane. Cultivated. Seed.
482777. TGR 738D. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Heads loose. Seeds white. Cultivated. Seed.

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482778. TGR 738E. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Race Kafir. Heads semi-compact. Seeds bristled, red. Cultivated. Seed.
482779. TGR 738F. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Race Kafir. Seeds red. Local name Tsweta. Cultivated. Seed.
482780. TGR 738G. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Stalks sweet. Cultivated. Seed.
482781. TGR 738H. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Stalks sweet. Local name Chikochawi. Cultivated. Seed.
482782. TGR 738I. Zimbabwe. Latitude: 19 deg 45 m S; Longitude: 030 deg 37 m E. Collected May 19, 1982. Farmstore, 5km S of St. Joseph Mission, Midlands Province. 1150m. Sown September, harvested February. Stalks sweet. Local name Chifumbata. Cultivated. Seed.
482783. TGR 753. Zimbabwe. Latitude: 19 deg 50 m S; Longitude: 030 deg 33 m E. Collected May 19, 1982. Farmstore, 19km S of St. Joseph Mission, Midlands Province. 1100m. Sown November. Local name Tsweta. Cultivated. Seed.
482784. TGR 755. Zimbabwe. Latitude: 19 deg 50 m S; Longitude: 030 deg 33 m E. Collected May 19, 1982. Farmstore, 14km S of St. Joseph Mission, Midlands Province. 1100m. Sown November. Local name Chifumbata. Cultivated. Seed.
482785. TGR 759. Zimbabwe. Latitude: 19 deg 50 m S; Longitude: 030 deg 33 m E. Collected May 19, 1982. Farmstore, 14km S of St. Joseph Mission, Midlands Province. 1100m. Race Kafir. Heads compact, corneous. Local name Chifumbata. Cultivated. Seed.
482786. TGR 771. Zimbabwe. Latitude: 18 deg 54 m S; Longitude: 031 deg 02 m E. Collected May 20, 1982. Farmstore, 1 km N of All Saints School, Midlands Province. 1490m. Stalks sweet. Cultivated. Seed.
482787. TGR 800. Zimbabwe. Latitude: 18 deg 53 m S; Longitude:



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- 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Sown November. Local name Tsweta. Cultivated. Seed.
482788. TGR 824. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, Sadza, Midlands Province. 1420m. Local name Tsweta. Cultivated. Seed.
482789. TGR 840B. Zimbabwe. Latitude: 18 deg 15 m S; Longitude: 028 deg 24 m E. Collected May 21, 1982. Farmstore, 35km W of Gokwe Do, Midlands Province. 1100m. Sown January, harvested April or May. Seeds red. Cultivated. Seed.
482790. TGR 866. Zimbabwe. Latitude: 18 deg 10 m S; Longitude: 028 deg 34 m E. Collected May 22, 1982. Farmstore, 10km W of Manyoni BC, Midlands Province. 1100m. Race Bicolor. Stalks mainly sweet. Cultivated. Seed.
482791. TGR 877. Zimbabwe. Latitude: 18 deg 12 m S; Longitude: 028 deg 36 m E. Collected May 22, 1982. Farmstore, 4km S of Manyoni BC, Midlands Province. 1180m. Stalks sweet. Cultivated. Seed.
482792. TGR 885. Zimbabwe. Latitude: 18 deg 08 m S; Longitude: 028 deg 39 m E. Collected May 22, 1982. Farmstore, 14km W of Manyoni BC, Midlands Province. 1120m. Stalks sweet. Cultivated. Seed.
482793. TGR 902. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Farmstore, 13km NW of Mkoba BC, Midlands Province. 1300m. Stalks sweet. Cultivated. Seed.
482794. TGR 903. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Farmstore, 13km NW of Mkoba BC, Midlands Province. 1300m. Race Caudatum. Cultivated. Seed.
482795. TGR 907. Zimbabwe. Latitude: 19 deg 16 m S; Longitude: 029 deg 28 m E. Collected May 24, 1982. Farmstore, 26km W of Mkoba, Midlands Province. 1300m. Sown October, harvested April. Mixture of race Caudatum and Tsweta types. Cultivated. Seed.
482796. TGR 979. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 4km of Sadza, Midlands Province. 1420m. Heads compact. Seeds white. Cultivated. Seed.
482797. TGR 980. Zimbabwe. Latitude: 18 deg 53 m S; Longitude: 031 deg 24 m E. Collected May 20, 1982. Farmstore, 4km of Sadza, Midlands Province. 1420m. Local name Tsweta.

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Cultivated. Seed.

482798. TGR 990. Zimbabwe. Latitude: 19 deg 02 m S; Longitude: 031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km from Mupatsi, Midlands Province. 1200m. Local name Rudewde. Cultivated. Seed.
482799. TGR 1066. Zimbabwe. Latitude: 19 deg 33 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. Farmstore, 36km NE of Donga, Midlands Province. 1200m. Stalks sweet. Cultivated. Seed.
482800. TGR 1086. Zimbabwe. Latitude: 19 deg 44 m S; Longitude: 030 deg 16 m E. Collected May 26, 1982. Farmstore, 19km SE of Hanke BC, Midlands Province. 1200m. Mixed types. Stalks sweet. Used for chewing. Cultivated. Seed.
482801. TGR 1092. Zimbabwe. Latitude: 20 deg 38 m S; Longitude: 030 deg 23 m E. Collected May 27, 1982. Farmstore, 3km NE of Masvingo, Midlands Province. 780m. Weevil damage present. Local name Chibedyane. Cultivated. Seed.
482802. TGR 1093. Zimbabwe. Latitude: 20 deg 38 m S; Longitude: 030 deg 23 m E. Collected May 27, 1982. Farmstore, 3km NE of Masvingo, Midlands Province. 780m. Stalks sweet. Used for chewing. Local name Mwise-Weshoko. Cultivated. Seed.
482803. TGR 1095. Zimbabwe. Latitude: 20 deg 45 m S; Longitude: 030 deg 20 m E. Collected May 27, 1982. Farmstore, 4km SW of Masvingo, Midlands Province. 750m. Local name Sosoti. Cultivated. Seed.
482804. TGR 1103. Zimbabwe. Latitude: 20 deg 48 m S; Longitude: 030 deg 22 m E. Collected May 27, 1982. Farmstore, 3km W of Masvingo, Midlands Province. 880m. Local name Gangare. Cultivated. Seed.
482805. TGR 1104. Zimbabwe. Latitude: 20 deg 48 m S; Longitude: 030 deg 22 m E. Collected May 27, 1982. Farmstore, 8km SE of Masvingo, Midlands Province. 850m. Race Kafir. Heads compact. Seeds white, corneous. Local name Chifumbata. Cultivated. Seed.
482806. TGR 1111. Zimbabwe. Latitude: 20 deg 42 m S; Longitude: 030 deg 21 m E. Collected May 27, 1982. Farmstore, 11km S of Masvingo, Midlands Province. 850m. Sown December, harvested April. Race Kafir. Seeds red. Local name Tsweta. Cultivated. Seed.
482807. TGR 1112. Zimbabwe. Latitude: 20 deg 42 m S; Longitude: 030 deg 21 m E. Collected May 27, 1982. Farmstore, 11km S of Masvingo, Midlands Province. 850m. Sown December, harvested April. Heads compact. Race Kafir. Seeds white.

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Local name Rushutura. Cultivated. Seed.

482808. TGR 1116. Zimbabwe. Latitude: 20 deg 51 m S; Longitude: 030 deg 11 m E. Collected May 27, 1982. Farmstore, 1 km W of Mataka, Midlands Province. 760m. Seeds white, corneous. Race Kafir. Local name Chivedyana. Cultivated. Seed.
482809. TGR 1123. Zimbabwe. Latitude: 20 deg 51 m S; Longitude: 030 deg 12 m E. Collected May 27, 1982. Farmstore, Mataka BC, Midlands Province. 760m. Local name Chivedyana. Cultivated. Seed.
482810. TGR 1124. Zimbabwe. Latitude: 20 deg 51 m S; Longitude: 030 deg 12 m E. Collected May 27, 1982. Farmstore, Mataka BC, Midlands Province. 760m. Local name Tsweta. Cultivated. Seed.
482811. TGR 1125. Zimbabwe. Latitude: 20 deg 51 m S; Longitude: 030 deg 12 m E. Collected May 27, 1982. Farmstore, Mataka BC, Midlands Province. 760m. Local name Chifumbata. Cultivated. Seed.
482812. TGR 1126. Zimbabwe. Latitude: 20 deg 51 m S; Longitude: 030 deg 12 m E. Collected May 27, 1982. Farmstore, Mataka BC, Midlands Province. 760m. Local name Rundende. Cultivated. Seed.
482813. TGR 1127. Zimbabwe. Latitude: 20 deg 51 m S; Longitude: 030 deg 12 m E. Collected May 27, 1982. Farmstore, Mataka BC, Midlands Province. 760m. Local name Chitate. Cultivated. Seed.
482814. TGR 1146. Zimbabwe. Latitude: 20 deg 44 m S; Longitude: 030 deg 12 m E. Collected May 27, 1982. Farmstore, Maranda EC, Midlands Province. 950m. Stalks sweet, used for chewing. Cultivated. Seed.
482815. TGR 1147. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 030 deg 17 m E. Collected May 28, 1982. Farmstore, 7km N of Zurubi BC, Midlands Province. 850m. Sown October, harvested April. Local name Gangare. Cultivated. Seed.
482816. TGR 1158. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 030 deg 17 m E. Collected May 28, 1982. Farmstore, 7km N of Zurubi, Midlands Province. 850m. Mixture of local types, Chifumbala and Tsveta. Cultivated. Seed.
482817. TGR 1158A. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 030 deg 17 m E. Collected May 28, 1982. Farmstore, 7km N of Zurubi, Midlands Province. 850m. Local name Chifumbala. Cultivated. Seed.
482818. TGR 1158B. Zimbabwe. Latitude: 20 deg 26 m S; Longitude:

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- 030 deg 17 m E. Collected May 28, 1982. Farnstore, 7km N of Zurubi, Midlands Province. 850m. Local name Tsveta. Cultivated. Seed.
482819. TGR 1163. Zimbabwe. Latitude: 20 deg 26 m S; Longitude: 030 deg 17 m E. Collected May 28, 1982. Farnstore, 7km N of Zurubi, Midlands Province. 850m. Local name Rusutura. Cultivated. Seed.
482820. TGR 1172. Zimbabwe. Latitude: 20 deg 08 m S; Longitude: 029 deg 57 m E. Collected May 28, 1982. Farnstore, 23km N of Shabani, Midlands Province. 1050m. Stalks sweet. Local name Rugare. Cultivated. Seed.
482821. TGR 1174. Zimbabwe. Latitude: 20 deg 08 m S; Longitude: 029 deg 57 m E. Collected May 28, 1982. Farnstore, 23km N of Shabani, Midlands Province. 1050m. Sown December, harvested April. Cultivated. Seed.
482822. TGR 1204. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farnstore, 2.5km SE of Tsanzaguru BC, Manicaland Province. 1320m. Race Kafir. Local name Tsweda. Cultivated. Seed.
482823. TGR 1204A. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farnstore, 2.5km SE of Tsanzaguru BC, Manicaland Province. 1320m. Race Kafir. Glumes black. Seeds white, corneous. Cultivated. Seed.
482824. TGR 1204B. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farnstore, 2.5km SE of Tsanzaguru BC, Manicaland Province. 1320m. Race Kafir. Glumes white. Seeds chalky white. Cultivated. Seed.
482825. TGR 1204D. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farnstore, 2.5km SE of Tsanzaguru BC, Manicaland Province. 1320m. Mixture of various glume colors and seed colors and textures. Race Kafir. Cultivated. Seed.
482826. TGR 1206. Zimbabwe. Latitude: 18 deg 37 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farnstore, 4.5km SE of Tsanzaguru BC, Manicaland Province. 1320m. Sown October, harvested March. Seeds white. Used for sadza and beer. Local name Rundende. Cultivated. Seed.
482827. TGR 1208. Zimbabwe. Latitude: 18 deg 37 m S; Longitude: 032 deg 05 m E. Collected June 01, 1982. Farnstore, 4.5km SE of Tsanzaguru BC, Manicaland Province. 1320m. Stalks sweet. Cultivated. Seed.
482828. TGR 1209. Zimbabwe. Latitude: 18 deg 36 m S; Longitude:

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- 032 deg 05 m E. Collected June 01, 1982. Farmstore, 6km S of Tsanzaguru, Manicaland Province. 1320m. Sown October, harvested March. Race Kafir. Seeds red. Local name Tswedhani. Cultivated. Seed.
482829. TGR 1224. Zimbabwe. Latitude: 18 deg 50 m S; Longitude: 032 deg 03 m E. Collected June 01, 1982. Farmstore, School, Mutungagore Manicaland Province. 1100m. Cultivated. Seed.
482830. TGR 1230. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 4km E of Nyatate BC, Manicaland Province. 1190m. Sown November, harvested April. Local name Tsenhe. Cultivated. Seed.
482831. TGR 1234. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 1 km W of Nyatate BC, Manicaland Province. 1190m. Seeds white. Cultivated. Seed.
482832. TGR 1235. Zimbabwe. Latitude: 18 deg 01 m S; Longitude: 032 deg 39 m E. Collected June 02, 1982. Farmstore, 1 km W of Nyatate BC, Manicaland Province. 1190m. Sown November. Local name Mutanda. Cultivated. Seed.
482833. TGR 1258. Zimbabwe. Latitude: 17 deg 52 m S; Longitude: 032 deg 57 m E. Collected June 03, 1982. Farmstore, 1 km NW of Nyaruaka BC, Manicaland Province. 800m. Stalks sweet. Cultivated. Seed.
482834. TGR 1263. Zimbabwe. Latitude: 17 deg 47 m S; Longitude: 032 deg 59 m E. Collected June 03, 1982. Farmstore, 1 km SW of Nyanghombac, Manicaland Province. 800m. Sown November, harvested April. Mixture of types. Cultivated. Seed.
482835. TGR 1269. Zimbabwe. Latitude: 17 deg 47 m S; Longitude: 032 deg 59 m E. Collected June 03, 1982. Farmstore, 1 km SW of Nyanghombac, Manicaland Province. 800m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482836. TGR 1278. Zimbabwe. Latitude: 17 deg 54 m S; Longitude: 032 deg 52 m E. Collected June 03, 1982. Farmstore, Kute School, Manicaland Province. 900m. Sown November, harvested April. Race Caudatum. Local name Bimbi. Cultivated. Seed.
482837. TGR 1287. Zimbabwe. Latitude: 17 deg 52 m S; Longitude: 032 deg 55 m E. Collected June 03, 1982. Farmstore, Nyamura Ndira, Manicaland Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482838. TGR 1306. Zimbabwe. Latitude: 18 deg 34 m S; Longitude:

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- 032 deg 48 m E. Collected June 07, 1982. Farmstore, Honde BC, Manicaland Province. 850m. Race Bicolor. Stalks sweet. Local name Mukaruki. Cultivated. Seed.
482839. TGR 1307. Zimbabwe. Latitude: 18 deg 34 m S; Longitude: 032 deg 48 m E. Collected June 07, 1982. Farmstore, Honde BC, Manicaland Province. 850m. Race Bicolor. Stalks sweet. Local name Mukaruki. Cultivated. Seed.
482840. TGR 1317. Zimbabwe. Latitude: 18 deg 34 m S; Longitude: 032 deg 45 m E. Collected June 07, 1982. Farmstore, Honde BC, Manicaland Province. 850m. Race Caudatum. Local name Mabumbi. Cultivated. Seed.
482841. TGR 1322. Zimbabwe. Latitude: 18 deg 34 m S; Longitude: 032 deg 45 m E. Collected June 07, 1982. Farmstore, Honde BC, Manicaland Province. 850m. Subtending head stems goosenecked. Very resistant to birds. Local name Nzende. Cultivated. Seed.
482842. TGR 1325. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 5km E of Honde Mission, Manicaland Province. 900m. Sown November. Race Caudatum. Local name Bimbi. Cultivated. Seed.
482843. TGR 1333. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Sown November. Cultivated. Seed.
482844. TGR 1341. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Seeds white. Cultivated. Seed.
482845. TGR 1347A. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Seeds used for beer and sadza. Local name Pumbi. Cultivated. Seed.
482846. TGR 1347B. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Seed used for beer and sadza. Local name Musoso. Cultivated. Seed.
482847. TGR 1347C. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Mixed types. Seeds used for beer and sadza. Cultivated. Seed.
482848. TGR 1347E. Zimbabwe. Latitude: 18 deg 36 m S; Longitude:

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- 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Mixed types. Seeds used for beer and sadza. Cultivated. Seed.
482849. TGR 1358. Zimbabwe. Latitude: 18 deg 31 m S; Longitude: 032 deg 44 m E. Collected June 07, 1982. Farmstore, 2km W of Gatsi BC, Manicaland Province. 870m. Sown November. Local name Tsene. Cultivated. Seed.
482850. TGR 1372. Zimbabwe. Latitude: 18 deg 30 m S; Longitude: 032 deg 50 m E. Collected June 07, 1982. Farmstore, 1 km W of Hauna BC, Manicaland Province. 800m. Stalks sweet. Cultivated. Seed.
482851. TGR 1384. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 48 m E. Collected June 07, 1982. Farmstore, 3km NE of Mparutsa BC, Manicaland Province. 800m. Sown November. Local name Mayere. Cultivated. Seed.
482852. TGR 1385. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 48 m E. Collected June 07, 1982. Farmstore, Mparutsa BC, Manicaland Province. 800m. Local name Mukadziusaende. Cultivated. Seed.
482853. TGR 1402. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 58 m E. Collected June 08, 1982. Farmstore, 10km E of Mandeya BC, Manicaland Province. 750m. Races Kafir and Caudatum. Seeds white, corneous. Cultivated. Seed.
482854. TGR 1406. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 58 m E. Collected June 08, 1982. Farmstore, 10km E of Mandeya BC, Manicaland Province. 750m. Sown November. Cultivated. Seed.
482855. TGR 1423. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Sown November. Race Kafir. Local name Mutode. Cultivated. Seed.
482856. TGR 1435. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farmstore, 4km NE of Machona School, Manicaland Province. 400m. Stalks sweet. Cultivated. Seed.
482857. TGR 1444. Zimbabwe. Latitude: 20 deg 51 m S; Longitude: 032 deg 16 m E. Collected June 09, 1982. Farmstore, 7km N of Chiyankwakwa BC, Manicaland Province. 400m. Sown November. Local name Mutode. Cultivated. Seed.
482858. TGR 1448. Zimbabwe. Latitude: 20 deg 53 m S; Longitude: 032 deg 17 m E. Collected June 09, 1982. Farmstore, 4km W of Chinyankwakwa, Manicaland Province. 390m. Sown November. Local name Múdhoriyana. Cultivated. Seed.

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482859. TGR 1460. Zimbabwe. Latitude: 19 deg 58 m S; Longitude: 032 deg 25 m E. Collected June 11, 1982. Farmstore, Changazi BC, Manicaland Province. 610m. Cultivated. Seed.
482860. TGR 1481. Zimbabwe. Latitude: 17 deg 41 m S; Longitude: 029 deg 45 m E. Collected June 15, 1982. Farmstore, Hombwe BC, Mashonaland West Province. 900m. Stalks sweet. Cultivated. Seed.
482861. TGR 1482. Zimbabwe. Latitude: 17 deg 41 m S; Longitude: 029 deg 45 m E. Collected June 15, 1982. Farmstore, Hombwe BC, Mashonaland West Province. 900m. Cultivated. Seed.
482862. TGR 1501. Zimbabwe. Latitude: 17 deg 45 m S; Longitude: 029 deg 43 m E. Collected June 15, 1982. Farmstore, NE of Strupert Mission, Mashonaland West Province. 900m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482863. TGR 1503. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 029 deg 29 m E. Collected June 15, 1982. Farmstore, Chipfuvamuti School, Mashonaland West Province. 1000m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482864. TGR 1516. Zimbabwe. Latitude: 17 deg 36 m S; Longitude: 029 deg 32 m E. Collected June 16, 1982. Farmstore, 10km SE of Kenzamba BC, Mashonaland West Province. 1000m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482865. TGR 1521. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 029 deg 38 m E. Collected June 16, 1982. Farmstore, N of Mapfungwe School, Mashonaland West Province. 880m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482866. TGR 1535. Zimbabwe. Latitude: 17 deg 27 m S; Longitude: 029 deg 35 m E. Collected June 16, 1982. Farmstore, 1 km W of Kenzamba BC, Mashonaland West Province. 900m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482867. TGR 1537. Zimbabwe. Latitude: 17 deg 26 m S; Longitude: 029 deg 31 m E. Collected June 16, 1982. Farmstore, Nyare BC, Mashonaland West Province. 900m. Sown November, harvested April. Cultivated. Seed.
482868. TGR 1543. Zimbabwe. Latitude: 17 deg 26 m S; Longitude: 029 deg 31 m E. Collected June 16, 1982. Farmstore, Nyare BC, Mashonaland West Province. 900m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482869. TGR 1544. Zimbabwe. Latitude: 17 deg 26 m S; Longitude: 029 deg 31 m E. Collected June 16, 1982. Farmstore, Nyare



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- BC, Mashonaland West Province. 900m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482870. TGR 1546. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 029 deg 29 m E. Collected June 16, 1982. Farmstore, Obva BC, Mashonaland West Province. 850m. Sown November, harvested April. Local name Rongwe. Cultivated. Seed.
482871. TGR 1552. Zimbabwe. Latitude: 17 deg 33 m S; Longitude: 029 deg 29 m E. Collected June 16, 1982. Farmstore, Obva, Mashonaland West Province. 850m. Sown November, harvested April. Maturity early. Stalks sweet. Cultivated. Seed.
482872. TGR 1556. Zimbabwe. Latitude: 17 deg 37 m S; Longitude: 030 deg 11 m E. Collected June 18, 1982. Farmstore, 15km N of Murombedzi BC, Mashonaland West Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482873. TGR 1574. Zimbabwe. Latitude: 17 deg 39 m S; Longitude: 030 deg 02 m E. Collected June 18, 1982. Farmstore, Chivere EC, Mashonaland West Province. 1100m. Sown November, harvested April. Local name Kanzwonzwo. Cultivated. Seed.
482874. TGR 1575. Zimbabwe. Latitude: 17 deg 43 m S; Longitude: 030 deg 07 m E. Collected June 18, 1982. Farmstore, Murindagomo BC, Mashonaland West Province. 1200m. Sown November, harvested April. Cultivated. Seed.
482875. TGR 1605. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 030 deg 17 m E. Collected June 18, 1982. Farmstore, Madzima EC, Mashonaland West Province. 1300m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482876. TGR 1616. Zimbabwe. Latitude: 16 deg 51 m S; Longitude: 029 deg 23 m E. Collected June 21, 1982. Farmstore, 8km SW of Magunde BC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Caudatum. Seeds chalky white. Local name Huse. Cultivated. Seed.
482877. TGR 1622. Zimbabwe. Latitude: 16 deg 56 m S; Longitude: 029 deg 23 m E. Collected June 21, 1982. Farmstore, Magunje EC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Kafir. Cultivated. Seed.
482878. TGR 1625. Zimbabwe. Latitude: 16 deg 52 m S; Longitude: 029 deg 24 m E. Collected June 21, 1982. Farmstore, 20km SW of Magunje BC, Mashonaland West Province. 1200m. Sown November, harvested April. Local name Musoco. Cultivated. Seed.
482879. TGR 1636. Zimbabwe. Latitude: 16 deg 47 m S; Longitude: 029 deg 25 m E. Collected June 21, 1982. Farmstore, N of

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- Magunje EC, Mashonaland West Province. 1180m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482880. TGR 1642. Zimbabwe. Latitude: 16 deg 46 m S; Longitude: 029 deg 24 m E. Collected June 21, 1982. Farmstore, 12km NW of Magunje BC, Mashonaland West Province. 1100m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482881. TGR 1643. Zimbabwe. Latitude: 16 deg 46 m S; Longitude: 029 deg 24 m E. Collected June 21, 1982. Farmstore, 12km NW of Magunje BC, Mashonaland West Province. 1100m. Stalks sweet. Cultivated. Seed.
482882. TGR 1673. Zimbabwe. Latitude: 17 deg 07 m S; Longitude: 029 deg 20 m E. Collected June 22, 1982. Farmstore, 14km S of Samuriwo BC, Mashonaland West Province. 1100m. Sown November, harvested April. Local name Chimhondoro. Cultivated. Seed.
482883. TGR 1680. Zimbabwe. Latitude: 17 deg 11 m S; Longitude: 029 deg 29 m E. Collected June 22, 1982. Farmstore, Chief Mujwja, Mashonaland West Province. 1100m. Sown November, harvested April. Cultivated. Seed.
482884. TGR 1690. Zimbabwe. Latitude: 17 deg 10 m S; Longitude: 029 deg 29 m E. Collected June 22, 1982. Farmstore, 3km E of Chimusimbe BC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Kafir. Seed chalky white. Local name Rongwe. Cultivated. Seed.
482885. TGR 1691. Zimbabwe. Latitude: 17 deg 10 m S; Longitude: 029 deg 29 m E. Collected June 22, 1982. Farmstore, 3km E of Chimusimbe BC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Caudatum. Seeds red. Local name Chinzetu. Cultivated. Seed.
482886. TGR 1694. Zimbabwe. Latitude: 17 deg 09 m S; Longitude: 029 deg 29 m E. Collected June 22, 1982. Farmstore, 4km N of Chimusimbe BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482887. TGR 1697. Zimbabwe. Latitude: 17 deg 09 m S; Longitude: 029 deg 29 m E. Collected June 22, 1982. Farmstore, 4km N of Chimusimbe BC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Kafir. Seed chalky white. Local name Kongwe. Cultivated. Seed.
482888. TGR 1704. Zimbabwe. Latitude: 16 deg 24 m S; Longitude: 029 deg 36 m E. Collected June 23, 1982. Farmstore, 4km NE of Chitake River Bridge, Mashonaland West Province. 1200m. Sown November, harvested April. Race Kafir. Local name Nzetu. Cultivated. Seed.

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482889. TGR 1705. Zimbabwe. Latitude: 16 deg 24 n S; Longitude: 029 deg 36 n E. Collected June 23, 1982. Farmstore, 4km NE of Chitake River Bridge, Mashonaland West Province. 1200m. Races Caudatum and Kafir. Cultivated. Seed.
482890. TGR 1706. Zimbabwe. Latitude: 16 deg 24 n S; Longitude: 029 deg 36 n E. Collected June 23, 1982. Farmstore, 4km NE of Chitake River Bridge, Mashonaland West Province. 1200m. Sown November, harvested April. Race Kafir. Heads compact. Cultivated. Seed.
482891. TGR 1722. Zimbabwe. Latitude: 16 deg 24 n S; Longitude: 029 deg 41 n E. Collected June 23, 1982. Farmstore, 17km E of Chitake River Bridge, Mashonaland West Province. 1100m. Sown November, harvested April. Race Kafir. Cultivated. Seed.
482892. TGR 1726. Zimbabwe. Latitude: 16 deg 22 n S; Longitude: 029 deg 45 n E. Collected June 23, 1982. Farmstore, E of Chitake River, Mashonaland West Province. 1100m. Sown November, harvested April. Race Kafir. Cultivated. Seed.
482893. TGR 1734. Zimbabwe. Latitude: 16 deg 28 n S; Longitude: 029 deg 39 n E. Collected June 23, 1982. Farmstore, 1 km E of Mhondiwa BC, Mashonaland West Province. 1200m. Sown November, harvested April. Race Caudatum. Cultivated. Seed.
482894. TGR 1735. Zimbabwe. Latitude: 16 deg 28 n S; Longitude: 029 deg 39 n E. Collected June 23, 1982. Farmstore, 1 km E of Mhondiwa BC, Mashonaland West Province. 1200m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482895. TGR 1736. Zimbabwe. Latitude: 16 deg 28 n S; Longitude: 029 deg 39 n E. Collected June 23, 1982. Farmstore, 1 km E of Mhondiwa BC, Mashonaland West Province. 1200m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482896. TGR 1745. Zimbabwe. Latitude: 16 deg 36 n S; Longitude: 029 deg 46 n E. Collected June 24, 1982. Farmstore, 11km W of Kadunga BC, Mashonaland West Province. 1200m. Sown November, harvested April. Race Caudatum. Heads compact. Seeds chalky white, bold. Sometimes eaten at dough stage. Stalks sweet. Local name Musoso. Cultivated. Seed.
482897. TGR 1746. Zimbabwe. Latitude: 16 deg 36 n S; Longitude: 029 deg 46 n E. Collected June 24, 1982. Farmstore, 11km W of Kadunga BC, Mashonaland West Province. 1200m. Sown November, harvested April. Races Kafir/Caudatum. Heads loose. Seeds red. Local name Nzetu. Cultivated. Seed.
482898. TGR 1757. Zimbabwe. Latitude: 16 deg 32 n S; Longitude:

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- 029 deg 49 m E. Collected June 24, 1982. Farmstore, 4km W of Kadunga BC, Mashonaland West Province. 1200m. Sown November, harvested April. Races Kafir/Caudatum. Cultivated. Seed.
482899. TGR 1761. Zimbabwe. Latitude: 16 deg 29 m S; Longitude: 029 deg 53 m E. Collected June 24, 1982. Farmstore, 1.4km N of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482900. TGR 1764. Zimbabwe. Latitude: 16 deg 29 m S; Longitude: 029 deg 53 m E. Collected June 24, 1982. Farmstore, 14km N of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Caudatum. Subtending head stems goosenecked. Local name Chiota. Cultivated. Seed.
482901. TGR 1768. Zimbabwe. Latitude: 16 deg 32 m S; Longitude: 029 deg 53 m E. Collected June 24, 1982. Farmstore, 6km E of Kadunga BC, Mashonaland West Province. 1100m. Cultivated. Seed.
482902. TGR 1775. Zimbabwe. Latitude: 16 deg 25 m S; Longitude: 029 deg 51 m E. Collected June 24, 1982. Farmstore, 7km S of Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Kafir. Heads very loose. Seeds chalky white. Cultivated. Seed.
482903. TGR 1789. Zimbabwe. Latitude: 16 deg 36 m S; Longitude: 029 deg 56 m E. Collected June 24, 1982. Farmstore, 21km E Kadunga BC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Kafir. Cultivated. Seed.
482904. TGR 1796. Zimbabwe. Latitude: 16 deg 40 m S; Longitude: 029 deg 50 m E. Collected June 24, 1982. Farmstore, 9km E of Miami BC, Mashonaland West Province. 1100m. Sown November, harvested April. Race Kafir. Cultivated. Seed.
482905. TGR 1813. Zimbabwe. Latitude: 17 deg 23 m S; Longitude: 031 deg 20 m E. Collected June 29, 1982. Farmstore, 2km E of Manhenga BC, Mashonaland Central Province. 1150m. Sown November, harvested April. Cultivated. Seed.
482906. TGR 1835. Zimbabwe. Latitude: 16 deg 59 m S; Longitude: 031 deg 31 m E. Collected June 30, 1982. Farmstore, 6km E of Madziva River Camp, Mashonaland Central Province. 1020m. Glumes completely closed. Nonshattering type. Weed in maize field. Cultivated. Seed.
482907. TGR 1838. Zimbabwe. Latitude: 16 deg 59 m S; Longitude: 031 deg 31 m E. Collected June 30, 1982. Farmstore, 6km E of Madziva River Camp, Mashonaland Central Province. 1020m. Sown November, harvested April. Glumes open, dark brown. Seeds chalky white. Cultivated. Seed.

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482908. TGR 1846. Zimbabwe. Latitude: 17 deg 07  $\text{m}$  S; Longitude: 031 deg 36  $\text{m}$  E. Collected June 30, 1982. Farmstore, 4km N of Chakonda BC, Mashonaland Central Province. 950m. Sown November, harvested April. Stalks sweet. Cultivated. Seed.
482909. TGR 1850. Zimbabwe. Latitude: 17 deg 07  $\text{m}$  S; Longitude: 031 deg 36  $\text{m}$  E. Collected June 30, 1982. Farmstore, 4km N of Chakonda BC, Mashonaland Central Province. 950m. Sown November, harvested April. Race Kafir. Heads loose. Local name Chikondoma. Cultivated. Seed.
482910. TGR 1851. Zimbabwe. Latitude: 17 deg 13  $\text{m}$  S; Longitude: 031 deg 37  $\text{m}$  E. Collected June 30, 1982. Farmstore, School, Chishapa Mashonaland Central Province. 1100m. Sown November, harvested April. Bird resistant. Local name Chiunda. Cultivated. Seed.
482911. TGR 1856. Zimbabwe. Latitude: 16 deg 56  $\text{m}$  S; Longitude: 031 deg 33  $\text{m}$  E. Collected June 30, 1982. Farmland, 10km E of Chief Madziwa, Mashonaland Central Province. 1050m. Shattering type. Seeds invested in awned glumes. Weed in maize field. Cultivated. Seed.
482912. TGR 1859. Zimbabwe. Latitude: 16 deg 56  $\text{m}$  S; Longitude: 031 deg 33  $\text{m}$  E. Collected June 30, 1982. Farmstore, E of Chief Madziwa, Mashonaland Central Province. 1050m. Sown November, harvested April. Race Guinea or Kafir. Heads loose. Cultivated. Seed.
482913. TGR 1862. Zimbabwe. Latitude: 16 deg 54  $\text{m}$  S; Longitude: 031 deg 24  $\text{m}$  E. Collected June 30, 1982. Farmstore, 8km SW of Chief Madziwa, Mashonaland Central Province. 1120m. Sown November, harvested April. Cultivated. Seed.
482914. TGR 1878. Zimbabwe. Latitude: 16 deg 35  $\text{m}$  S; Longitude: 032 deg 10  $\text{m}$  E. Collected July 01, 1982. Farmstore, School, Nyawa Mashonaland Central Province. 1000m. Sown November, harvested April. Race Kafir. Seeds white. Local name Mashava. Cultivated. Seed.
482915. TGR 1888. Zimbabwe. Latitude: 16 deg 32  $\text{m}$  S; Longitude: 032 deg 11  $\text{m}$  E. Collected July 01, 1982. Farmstore, 9km N of Nyawa School, Mashonaland Central Province. 1000m. Sown November, harvested April. Race Kafir. Cultivated. Seed.
482916. TGR 1896. Zimbabwe. Latitude: 16 deg 37  $\text{m}$  S; Longitude: 032 deg 17  $\text{m}$  E. Collected July 01, 1982. Farmstore, 1 km W of Nkondi Mt., Mashonaland Central Province. 750m. Sown November, harvested April. Cultivated. Seed.
482917. TGR 1901. Zimbabwe. Latitude: 16 deg 37  $\text{m}$  S; Longitude:

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- 032 deg 26 m E. Collected July 01, 1982. Farmstore, 8km E of Mary Mount Mission, Mashonaland Central Province. 680m. Sown November, harvested April. Race Kafir. Cultivated. Seed.
482918. TGR 1909. Zimbabwe. Latitude: 16 deg 40 m S; Longitude: 032 deg 14 m E. Collected July 01, 1982. Farmstore, 23km W of Mary Mount Mission, Mashonaland Central Province. 680m. Sown November, harvested April. Race Kafir. Heads compact. Seeds white. Cultivated. Seed.
482919. TGR 1918A. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 031 deg 42 m E. Collected July 02, 1982. Farmstore, Mukumbura, Mashonaland Central Province. 450m. Race Kafir. Glumes open. Seeds white. Local name Mashava. Cultivated. Seed.
482920. TGR 1918B. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 031 deg 42 m E. Collected July 02, 1982. Farmstore, Mukumbura, Mashonaland Central Province. 450m. Race Kafir. Glumes open. Heads loose. Seeds corneous, white. Local name Kaponyero. Cultivated. Seed.
482921. TGR 1918C. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 031 deg 42 m E. Collected July 02, 1982. Farmstore, Mukumbura, Mashonaland Central Province. 450m. Race Kafir. Glumes black. Heads compact. Seeds corneous, white. Cultivated. Seed.
482922. TGR 1918D. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 031 deg 42 m E. Collected July 02, 1982. Farmstore, Mukumbura, Mashonaland Central Province. 450m. Race Kafir/Caudatum. Glumes black. Seeds chalky white. Local name Kabhurwayo. Cultivated. Seed.
482923. TGR 1929. Zimbabwe. Latitude: 16 deg 20 m S; Longitude: 031 deg 45 m E. Collected July 02, 1982. Farmstore, 13km S of Mukumbura, Mashonaland Central Province. 530m. Sown November, harvested April. Cultivated. Seed.
482924. TGR 1929A. Zimbabwe. Latitude: 16 deg 20 m S; Longitude: 031 deg 45 m E. Collected July 02, 1982. Farmstore, 13km S of Mukumbura, Mashonaland Central Province. 530m. Sown November, harvested April. Race Kafir. Heads loose. Seeds chalky white. Cultivated. Seed.
482925. TGR 1929B. Zimbabwe. Latitude: 16 deg 20 m S; Longitude: 031 deg 45 m E. Collected July 02, 1982. Farmstore, 13km S of Mukumbura, Mashonaland Central Province. 530m. Sown November, harvested April. Race Kafir. Heads compact. Seeds corneous, white. Cultivated. Seed.
482926. TGR 1934. Zimbabwe. Latitude: 16 deg 25 m S; Longitude:

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- 031 deg 49 m E. Collected July 02, 1982. Farmstore, 24km SE of Mukumbura BC, Mashonaland Central Province. 900m. Sown November, harvested April. Race Kafir/Guinea. Seeds chalky white. Cultivated. Seed.
482927. TGR 1943. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 49 m E. Collected July 03, 1982. Farmstore, 3km W of Ganderson Mission, Mashonaland Central Province. 900m. Sown November, harvested April. Stalks sweet, juicy. Cultivated. Seed.
482928. TGR 1948. Zimbabwe. Latitude: 16 deg 32 m S; Longitude: 031 deg 46 m E. Collected July 03, 1982. Farmstore, School, Chitsato, Mashonaland Central Province. 880m. Sown November, harvested April. Race Kafir/Caudatum. Plants tall. Heads loose. Bird resistant. Local name Chikondoma. Cultivated. Seed.
482929. TGR 1955. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 45 m E. Collected July 03, 1982. Farmstore, Chanwanda BC, Mashonaland Central Province. 980m. Sown November, harvested April. Cultivated. Seed.
482930. TGR 1965. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chanwanda BC, Mashonaland Central Province. 960m. Sown November, harvested April. Local name Chikondoma. Cultivated. Seed.
482931. TGR 1966. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 41 m E. Collected July 03, 1982. Farmstore, Chanwanda BC, Mashonaland Central Province. 960m. Sown November, harvested April. Local name Mashava. Cultivated. Seed.
482932. TGR 1987. Zimbabwe. Latitude: 16 deg 37 m S; Longitude: 031 deg 34 m E. Collected July 04, 1982. Farmstore, 1 km W of Dotito BC, Mashonaland Central Province. 990m. Sown November, harvested April. Bird resistant. Local name Chikondoma. Cultivated. Seed.
482933. TGR 1999. Zimbabwe. Latitude: 16 deg 31 m S; Longitude: 031 deg 28 m E. Collected July 04, 1982. Farmstore, 14km W of Dotito BC, Mashonaland Central Province. 1120m. Sown November, harvested April. Local name Chikondoma. Cultivated. Seed.
482934. TGR 2004. Zimbabwe. Latitude: 16 deg 29 m S; Longitude: 031 deg 21 m E. Collected July 04, 1982. Farmstore, 10km E of St. Albert Mission, Mashonaland Central Province. 1200m. Sown November, harvested April. Races Kafir/Caudatum. Local name Chikondoma. Cultivated. Seed.

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482935. TGR 2009. Zimbabwe. Latitude: 16 deg 22 m S; Longitude: 031 deg 01 m E. Collected July 06, 1982. Farmstore, N of Mzara Bani Estate, Mashonaland Central Province. 410m. Sown November, harvested May. Cultivated. Seed.
482936. TGR 2015. Zimbabwe. Latitude: 16 deg 18 m S; Longitude: 031 deg 05 m E. Collected July 06, 1982. Farmstore, 25km NE of Mzarabani Estate, Mashonaland Central Province. 400m. Race Kafir/Guinea. Plants very tall. Cultivated. Seed.
482937. TGR 2016. Zimbabwe. Latitude: 16 deg 18 m S; Longitude: 031 deg 05 m E. Collected July 06, 1982. Farmstore, 25km NE of Mzarabani Estate, Mashonaland Central Province. 400m. Sown December, harvested May. Race Kafir. Maturity early. Seeds corneous. Cultivated. Seed.
482938. TGR 2021. Zimbabwe. Latitude: 16 deg 20 m S; Longitude: 031 deg 02 m E. Collected July 06, 1982. Farmstore, School, Hoya, Mashonaland Central Province. 410m. Sown December, harvested April. Race Caudatum. Cultivated. Seed.
482939. TGR 2026. Zimbabwe. Latitude: 16 deg 07 m S; Longitude: 031 deg 06 m E. Collected July 06, 1982. Farmstore, 4km E of Musengedzi Mission, Mashonaland Central Province. 300m. Race Kafir/Guinea. Heads loose. Seeds white. Cultivated. Seed.
482940. TGR 2031. Zimbabwe. Latitude: 16 deg 17 m S; Longitude: 030 deg 35 m E. Collected July 06, 1982. Farmstore, 2km W of Masomo School, Mashonaland Central Province. 400m. Race Kafir/Guinea. Plants tall. Seeds white. Cultivated. Seed.
482941. TGR 2034. Zimbabwe. Latitude: 16 deg 17 m S; Longitude: 030 deg 35 m E. Collected July 06, 1982. Farmstore, 1 km W of Masomo School, Mashonaland Central Province. 400m. Sown December, harvested April. Race Kafir. Seeds red. Cultivated. Seed.
482942. TGR 2036. Zimbabwe. Latitude: 16 deg 16 m S; Longitude: 030 deg 28 m E. Collected July 07, 1982. Farmstore, Mission, Chitsungo, Mashonaland Central Province. 400m. Sown February, harvested May. Race Kafir/Guinea. Heads loose. Cultivated. Seed.
482943. TGR 2042. Zimbabwe. Latitude: 16 deg 16 m S; Longitude: 030 deg 28 m E. Collected July 07, 1982. Farmstore, E of Chitsungo Mission, Mashonaland Central Province. 400m. Race Kafir. Heads compact. Seed corneous, white. Cultivated. Seed.



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482944. TGR 2043A. Zimbabwe. Latitude: 16 deg 03 m S; Longitude: 030 deg 18 m E. Collected July 07, 1982. Farmstore, 9km W of Angum Bridge, Mashonaland Central Province. 400m. Sown December, harvested April. Races Kafir/Caudatum. Seeds chalky, white. Local name Njeya. Cultivated. Seed.
482945. TGR 2043E. Zimbabwe. Latitude: 16 deg 03 m S; Longitude: 030 deg 18 m E. Collected July 07, 1982. Farmstore, 9km W of Angum Bridge, Mashonaland Central Province. 400m. Sown December, harvested April. Races Kafir/Guinea. Seeds red. Local name Konzwonzwo. Cultivated. Seed.
482946. TGR 2043C. Zimbabwe. Latitude: 16 deg 03 m S; Longitude: 030 deg 18 m E. Collected July 07, 1982. Farmstore, 9km W of Angum Bridge, Mashonaland Central Province. 400m. Sown December, harvested April. Races Kafir/Guinea. Heads loose. Seed chalky white. Local name Chinyande. Cultivated. Seed.
482947. TGR 2043D. Zimbabwe. Latitude: 16 deg 03 m S; Longitude: 030 deg 18 m E. Collected July 07, 1982. Farmstore, 9km W of Angum Bridge, Mashonaland Central Province. 400m. Sown December, harvested April. Race Kafir. Seed corneous, white. Cultivated. Seed.
482948. TGR 2043E. Zimbabwe. Latitude: 16 deg 03 m S; Longitude: 030 deg 18 m E. Collected July 07, 1982. Farmstore, 9km W of Angum Bridge, Mashonaland Central Province. 400m. Sown December, harvested April. Race Caudatum. Heads compact. Seeds red. Used for beer. Local name Chisiri. Cultivated. Seed.
482949. TGR 2052. Zimbabwe. Latitude: 16 deg 44 m S; Longitude: 030 deg 23 m E. Collected July 07, 1982. Farmstore, near Kanyemba, Chief Chapoto, Mashonaland Central Province. 350m. Race Kafir/Guinea. Local name Mhwende. Cultivated. Seed.
482950. TGR 2054. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 030 deg 17 m E. Collected July 07, 1982. Farmstore, Angiwa Bridge, Mashonaland Central Province. 400m. Local name Matipa. Cultivated. Seed.
482951. TGR 2056A. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 030 deg 17 m E. Collected July 07, 1982. Farmstore, Angiwa Bridge, Mashonaland Central Province. 400m. Race Caudatum. Cultivated. Seed.
482952. TGR 2056B. Zimbabwe. Latitude: 16 deg 12 m S; Longitude: 030 deg 17 m E. Collected July 07, 1982. Farmstore, Angiwa Bridge, Mashonaland Central Province. 400m. Race Kafir. Cultivated. Seed.

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482953. TGR 2063A. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 030 deg 46 m E. Collected July 07, 1982. Farmstore, 9km S of Sipolilo, Mashonaland Central Province. 1300m. Sown November, harvested April. Plants tall. Heads loose. Seeds white. Local name Chikondoma. Cultivated. Seed.
482954. TGR 2063B. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 030 deg 46 m E. Collected July 08, 1982. Farmstore, 9km S of Sipolilo, Mashonaland Central Province. 1300m. Plants tall. Heads compact. Cultivated. Seed.
482955. TGR 2068A. Zimbabwe. Latitude: 16 deg 42 m S; Longitude: 030 deg 39 m E. Collected July 08, 1982. Farmstore, 10km W of Sipolilo, Mashonaland Central Province. 1200m. Sown November, harvested April. Race Caudatum. Seeds chalky white. Local name Mososo. Cultivated. Seed.
482956. TGR 2068B. Zimbabwe. Latitude: 16 deg 42 m S; Longitude: 030 deg 39 m E. Collected July 08, 1982. Farmstore, 10km W of Sipolilo, Mashonaland Central Province. 1200m. Sown November, harvested April. Race Caudatum. Seeds red/orange. Local name Chakondoma. Cultivated. Seed.
482957. TGR 2069. Zimbabwe. Latitude: 16 deg 42 m S; Longitude: 030 deg 39 m E. Collected July 08, 1982. Farmstore, 10km W of Sipolilo, Mashonaland Central Province. 1200m. Sown November, harvested April. Race Kafir. Stalks sweet. Cultivated. Seed.
482958. TGR 2074. Zimbabwe. Latitude: 16 deg 42 m S; Longitude: 030 deg 39 m E. Collected July 08, 1982. Farmstore, 21km W of Sipolilo, Mashonaland Central Province. 1200m. Plants tall. Heads loose. Seeds white. Local name Musoso. Cultivated. Seed.
482959. TGR 2075. Zimbabwe. Latitude: 16 deg 33 m S; Longitude: 030 deg 33 m E. Collected July 08, 1982. Farmstore, 11km E of Kachuta, Mashonaland Central Province. 1140m. Race Caudatum. Heads semi-compact. Seeds red. Bird resistant. Cultivated. Seed.
482960. TGR 2076. Zimbabwe. Latitude: 16 deg 32 m S; Longitude: 030 deg 30 m E. Collected July 08, 1982. Farmstore, 3km E of Kachuta Council, Mashonaland Central Province. 1100m. Sown November, harvested April. Race Kafir. Cultivated. Seed.
482961. TGR 2082. Zimbabwe. Latitude: 17 deg S; Longitude: 031 deg 05 m E. Collected July 09, 1982. Farmstore, 8km S of Madombwe, Mashonaland Central Province. 1200m. Sown November, harvested April. Local name Hota. Cultivated. Seed.

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482962. TGR 2090. Zimbabwe. Latitude: 17 deg 50 m S; Longitude: 031 deg 10 m E. Collected July 09, 1982. Farmstore, 16km N of Madombwe, Mashonaland Central Province. 1200m. Sown November, harvested April. Race Kafir/Caudatum. Cultivated. Seed.
482963. TGR 2095. Zimbabwe. Latitude: 17 deg 47 m S; Longitude: 031 deg 15 m E. Collected July 09, 1982. Farmstore, 4km S of Chaona School, Mashonaland Central Province. 1100m. Sown November, harvested April. Race Kafir/Caudatum. Cultivated. Seed.
482964. TGR 2097. Zimbabwe. Latitude: 17 deg 04 m S; Longitude: 031 deg 21 m E. Collected July 09, 1982. Farmland, Chombira, Mashonaland Central Province. 1250m. Race Bicolor. Subtending head stems goosenecked. Weed in cotton field. Cultivated. Seed.
482965. TGR 2100. Zimbabwe. Latitude: 20 deg 03 m S; Longitude: 032 deg 26 m E. Collected July 11, 1982. Farmstore, 4km N of Musani BC, Manicaland Province. 700m. Sown October. Mixed with Pennisetum. Cultivated. Seed.
482966. TGR 2101. Zimbabwe. Latitude: 20 deg 04 m S; Longitude: 032 deg 21 m E. Collected June 11, 1982. Farmstore, 14km S of Birchenough Bridge, Manicaland Province. 500m. Sown October. Mixed with Pennisetum. Local name Dene. Cultivated. Seed.

482967 TO 482968. Sorghum sp. (Poaceae).

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR; Research and Specialist Services; Rome, Italy; Causeway, Zimbabwe. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received January 1983.

482967. TGR 494. Zimbabwe. Latitude: 20 deg 03 m S; Longitude: 032 deg 53 m E. Collected May 05, 1982. Roadside, 2km E of Gata Rest Camp, Manicaland Province. 700m. Heads closed. Glumes completely enclose seed. Seeds red. Wild/Weedy. Seed.
482968. TGR 1931. Zimbabwe. Latitude: 16 deg 21 m S; Longitude: 031 deg 46 m E. Collected July 02, 1982. Dry riverbed, 16km SE of Mukumbura, Mashonaland Central Province. 580m. Wild/Weedy. Seed.

482969 TO 483006. Zea mays L. (Poaceae) Field corn.

From Zimbabwe. Collected by Toll, J.; Gwarazimba, V.; IBPGR;

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Research and Specialist Services; Rome, Italy; Causeway,  
Zimbabwe. Received through International Board for Plant  
Genetic Resources (IBPGR), Rome, Italy.  
Received January 1983.

482969. TGR 585. Zimbabwe. Latitude: 20 deg 18 m S; Longitude:  
032 deg 49 m E. Collected May 10, 1982. Farmstore, 1.8km  
NE of Tamandui BC, Manicaland Province. 700m. Sown  
November, harvested May. Resistant to weevils. Local name  
Chitonga or Chindau. Cultivated. Seed.
482970. TGR 597. Zimbabwe. Latitude: 20 deg 18 m S; Longitude:  
032 deg 49 m E. Collected May 10, 1982. Farmstore, 1 km S  
of Tamandui BC, Manicaland Province. 700m. Sown October,  
harvested April. Resistant to weevil and drought. Local  
name Chindau or Chitonga. Cultivated. Seed.
482971. TGR 625. Zimbabwe. Latitude: 20 deg 22 m S; Longitude:  
032 deg 46 m E. Collected May 10, 1982. Farmstore, 17.8km  
SW of Tamandui BC, Manicaland Province. 900m. Sown  
October, harvested April. Resistant to weevils. Local  
name Chitonga. Cultivated. Seed.
482972. TGR 628. Zimbabwe. Latitude: 20 deg 26 m S; Longitude:  
032 deg 43 m E. Collected May 11, 1982. Farmstore, 1.7km  
S of Mt. Selinda Mission, Manicaland Province. 980m. Sown  
October, harvested April. Local name Chitonga. Cultivated.  
Seed.
482973. TGR 646. Zimbabwe. Latitude: 20 deg 26 m S; Longitude:  
032 deg 45 m E. Collected May 11, 1982. Farmstore, 8.3km  
S of Mt. Selinda Mission, Manicaland Province. 860m.  
Resistant to weevils. Local name Chindau. Cultivated.  
Seed.
482974. TGR 834. Zimbabwe. Latitude: 19 deg 04 m S; Longitude:  
031 deg 09 m E. Collected May 20, 1982. Farmstore, 3km W  
of Nharira BC, Midlands Province. 1450m. Local name  
Ndunga. Cultivated. Seed.
482975. TGR 1028. Zimbabwe. Latitude: 19 deg 02 m S; Longitude:  
031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km  
from Mupatgi, Midlands Province. 1200m. Local name  
Chitope. Cultivated. Seed.
482976. TGR 1037. Zimbabwe. Latitude: 19 deg 02 m S; Longitude:  
031 deg 28 m E. Collected May 20, 1982. Farmstore, 5km  
from Mupatgi, Midlands Province. 1200m. Cultivated. Seed.
482977. TGR 1044. Zimbabwe. Latitude: 19 deg 43 m S; Longitude:  
030 deg 10 m E. Collected May 26, 1982. Farmstore, 3km N  
of Donga, Midlands Province. 1250m. Maturity early. Cobs  
smoked to stop weevil damage. Local name Kalahari.

482969 TO 483006-continued

Cultivated. Seed.

482978. TGR 1046. Zimbabwe. Latitude: 19 deg 43 m S; Longitude: 030 deg 10 m E. Collected May 26, 1982. Farmstore, 3km N of Donga, Midlands Province. 1250m. Used for roasting. Seeds sweet. Cultivated. Seed.
482979. TGR 1058. Zimbabwe. Latitude: 19 deg 37 m S; Longitude: 030 deg 12 m E. Collected May 26, 1982. Farmstore, 27km N of Donga, Midlands Province. 1200m. Weevil damage present. Local name Varimugage. Cultivated. Seed.
482980. TGR 1100. Zimbabwe. Latitude: 20 deg 37 m S; Longitude: 030 deg 20 m E. Collected May 27, 1982. Farmstore, 6km NW of Masvingo, Midlands Province. 950m. Resistant to weevils and drought. Used for sadza. Local name Red Cob. Cultivated. Seed.
482981. TGR 1102. Zimbabwe. Latitude: 20 deg 36 m S; Longitude: 030 deg 24 m E. Collected May 27, 1982. Farmstore, 15km NE of Masvingo, Midlands Province. 800m. Seeds sweet. Local name Hickory King. Cultivated. Seed.
482982. TGR 1122A. Zimbabwe. Latitude: 20 deg 54 m S; Longitude: 030 deg 14 m E. Collected May 27, 1982. Farmstore, 14km SE of Mataka, Midlands Province. 720m. Local name Chimyanugage. Cultivated. Seed.
482983. TGR 1122B. Zimbabwe. Latitude: 20 deg 54 m S; Longitude: 030 deg 14 m E. Collected May 27, 1982. Farmstore, 14km SE of Mataka, Midlands Province. 720m. Local name Bobomba. Cultivated. Seed.
482984. TGR 1122C. Zimbabwe. Latitude: 20 deg 54 m S; Longitude: 030 deg 14 m E. Collected May 27, 1982. Farmstore, 14km SE of Mataka, Midlands Province. 720m. Local name Red Cob. Cultivated. Seed.
482985. TGR 1259. Zimbabwe. Latitude: 17 deg 52 m S; Longitude: 032 deg 57 m E. Collected June 03, 1982. Farmstore, 1 km NW of Nyaruaka BC, Manicaland Province. 800m. Sown December, harvested May. Highly resistant to weevils. Susceptible to virus streak. Cultivated. Seed.
482986. TGR 1281. Zimbabwe. Latitude: 17 deg 54 m S; Longitude: 032 deg 52 m E. Collected June 03, 1982. Farmstore, Kute School, Manicaland Province. 900m. Sown November, harvested April. Highly resistant to weevils. Local name Njeke. Cultivated. Seed.
482987. TGR 1293. Zimbabwe. Latitude: 18 deg 33 m S; Longitude: 032 deg 46 m E. Collected June 07, 1982. Farmstore, Samanga School, Manicaland Province. 850m. Sown November,

482969 TO 483006-continued

- harvested May. Resistant to weevils. Local name Manjeke. Cultivated. Seed.
482988. TGR 1320. Zimbabwe. Latitude: 18 deg 43 m S; Longitude: 032 deg 45 m E. Collected June 07, 1982. Farmstore, Honde BC, Manicaland Province. 850m. Sown November. Seeds very hard. Resistant to weevils and streak virus. Local name Njeke. Cultivated. Seed.
482989. TGR 1337. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Sown November. Seeds sweet. Cultivated. Seed.
482990. TGR 1349. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, 4km NE of Honde Mission, Manicaland Province. 900m. Sown November. Maturity early. Resistant to weevils and streak virus. Local name Mbobuu. Cultivated. Seed.
482991. TGR 1350. Zimbabwe. Latitude: 18 deg 36 m S; Longitude: 034 deg 46 m E. Collected June 07, 1982. Farmstore, Honde Mission, Manicaland Province. 900m. Sown November. Local name Chingenda. Cultivated. Seed.
482992. TGR 1354. Zimbabwe. Latitude: 18 deg 31 m S; Longitude: 032 deg 44 m E. Collected June 07, 1982. Farmstore, 3km E of Gatsi BC, Manicaland Province. 820m. Sown November. Maturity early. Local name Kanjeke. Cultivated. Seed.
482993. TGR 1363. Zimbabwe. Latitude: 18 deg 31 m S; Longitude: 032 deg 44 m E. Collected June 07, 1982. Farmstore, 4km SW of Gatsi BC, Manicaland Province. 820m. Sown November. Maturity early. Resistant to streak virus. Local name Kanjeke. Cultivated. Seed.
482994. TGR 1366. Zimbabwe. Latitude: 18 deg 31 m S; Longitude: 032 deg 44 m E. Collected June 07, 1982. Farmstore, 5km N of Gatsi, Manicaland Province. 820m. Sown November. Resistant to weevils and streak virus. Cultivated. Seed.
482995. TGR 1378. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 48 m E. Collected June 07, 1982. Farmstore, Mparutsa BC, Manicaland Province. 800m. Sown November. Seeds red. Used for popping corn. Local name Mbobuu. Cultivated. Seed.
482996. TGR 1408. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 58 m E. Collected June 08, 1982. Farmstore, Mandeya EC, Manicaland Province. 750m. Cultivated. Seed.
482997. TGR 1410. Zimbabwe. Latitude: 18 deg 27 m S; Longitude: 032 deg 58 m E. Collected June 08, 1982. Farmstore,

482969 TO 483006-continued

- Mandeya EC, Manicaland Province. 750m. Sown November. Seeds sweet. Used for roasting. Local name Chimanyika. Cultivated. Seed.
482998. TGR 1426. Zimbabwe. Latitude: 20 deg 52 m S; Longitude: 032 deg 13 m E. Collected June 09, 1982. Farnstore, 4km NE from Machona, Manicaland Province. 400m. Sown November. Resistant to weevils and drought. Local name Chikaranga. Cultivated. Seed.
482999. TGR 1500. Zimbabwe. Latitude: 17 deg 45 m S; Longitude: 029 deg 43 m E. Collected June 15, 1982. Farnstore NE of St. Rupert Mission, Manicaland Province. 900m. Sown November, harvested April. Seeds yellow, sweet. Wher green used for roasting. Cultivated. Seed.
483000. TGR 1508. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 024 deg 49 m E. Collected June 15, 1982. Farnstore, Chipfuvamuti School, Mashonaland West Province. 1000m. Sown November, harvested April. Maturity early. Seeds sweet. Cultivated. Seed.
483001. TGR 1509. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 024 deg 49 m E. Collected June 15, 1982. Farnstore, Chipfuvamuti School, Mashonaland West Province. 1000m. Sown November, harvested April. Seeds sweet. Used for roasting. Cultivated. Seed.
483002. TGR 1533. Zimbabwe. Latitude: 17 deg 27 m S; Longitude: 029 deg 35 m E. Collected June 16, 1982. Farnstore, 1 km W of Kenzaniba BC, Mashonaland West Province. 900m. Sown November, harvested April. Obsolete, open-pollinated type. Local name Salisbury White. Cultivated. Seed.
483003. TGR 1607. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 030 deg 17 m E. Collected June 18, 1982. Farnstore, Madzima EC, Mashonaland West Province. 1300m. Sown November, harvested April. Obsolete, open-pollinated type. Local name Hickory King. Cultivated. Seed.
483004. TGR 1608. Zimbabwe. Latitude: 17 deg 46 m S; Longitude: 030 deg 17 m E. Collected June 18, 1982. Farnstore, Madzima EC, Mashonaland West Province. 1300m. Sown November, harvested April. Seeds purple pigmented, roasted. Cultivated. Seed.
483005. TGR 1799. Zimbabwe. 1300m. Seed.
483006. TGR 2062. Zimbabwe. Latitude: 16 deg 43 m S; Longitude: 030 deg 46 m E. Collected July 08, 1982. Farnstore, 9km S of Sipolilo, Mashonaland Central Province. 1300m. Sown November, harvested April. Seeds yellow, sweet. Cultivated. Seed.

483007 TO 483039. *Aegilops* sp. (Poaceae).

From Cyprus. Collected by Chapman, C.D.G.; Della, A.; IBPGR; Agricultural Research Institute; Nicosia, Cyprus; Rome, Italy. Received through International Board for Plant Genetic Resources (IBPGR), Rome, Italy. Received August 1983.

483007. CC 4. Cyprus. Latitude: 35 deg 09  $\text{N}$ ; Longitude: 033 deg 23  $\text{E}$ . Collected May 24, 1983. English School, Nicosia, Nicosia Province. 160m. Wild. Seed.
483008. CC 23. Cyprus. Latitude: 35 deg 04  $\text{N}$ ; Longitude: 033 deg 08  $\text{E}$ . Collected May 25, 1983. North, 1 km from Ayios Pandleimon, Nicosia Province. 320m. Wild. Seed.
483009. CC 31. Cyprus. Latitude: 34 deg 59  $\text{N}$ ; Longitude: 033 deg 46  $\text{E}$ . Collected May 26, 1983. North-northwest, 2km from Ormidhia, Larnaca Province. 30m. Wild. Seed.
483010. CC 33. Cyprus. Latitude: 35 deg 01  $\text{N}$ ; Longitude: 033 deg 58  $\text{E}$ . Collected May 26, 1983. Northeast, 2km from Sotira, Larnaca Province. 90m. Wild. Seed.
483011. CC 42. Cyprus. Latitude: 35 deg 02  $\text{N}$ ; Longitude: 034 deg 02  $\text{E}$ . Collected May 26, 1983. West-northwest, 4km from Ayia Varvara, Famagusta Province. 10m. Wild. Seed.
483012. CC 45. Cyprus. Latitude: 34 deg 57  $\text{N}$ ; Longitude: 033 deg 25  $\text{E}$ . Collected May 27, 1983. West, 1 km from Mosphiloti, Larnaca Province. 260m. Wild. Seed.
483013. CC 46. Cyprus. Latitude: 34 deg 57  $\text{N}$ ; Longitude: 033 deg 27  $\text{E}$ . Collected May 27, 1983. Northeast, 1 km from Psevðhas, Larnaca Province. 200m. Wild. Seed.
483014. CC 50. Cyprus. Latitude: 34 deg 57  $\text{N}$ ; Longitude: 033 deg 28  $\text{E}$ . Collected May 27, 1983. South, 1 km from Psevðhas, Larnaca Province. 180m. Wild. Seed.
483015. CC 51. Cyprus. Latitude: 34 deg 57  $\text{N}$ ; Longitude: 033 deg 28  $\text{E}$ . Collected May 27, 1983. South, 1 km from Psevðhas, Larnaca Province. 180m. Wild. Seed.
483016. CC 55. Cyprus. Latitude: 34 deg 50  $\text{N}$ ; Longitude: 033 deg 37  $\text{E}$ . Collected May 27, 1983. Beach gravel, 5km WNW of Kiti, Larnaca Province. Wild. Seed.
483017. CC 56. Cyprus. Latitude: 34 deg 50  $\text{N}$ ; Longitude: 033 deg 37  $\text{E}$ . Collected May 27, 1983. Beach gravel, 5km WNW of Kiti, Larnaca Province. Wild. Seed.
483018. CC 57. Cyprus. Latitude: 34 deg 50  $\text{N}$ ; Longitude: 033 deg 37  $\text{E}$ . Collected May 27, 1983. Beach gravel, 5km WNW



483007 TO 483039-continued

- of Kiti, Larnaca Province. Wild. Seed.
483019. CC 62. Cyprus. Latitude: 34 deg 50 m N; Longitude: 033 deg 37 m E. Collected May 27, 1983. Beach gravel, 5km WNW of Kiti, Larnaca Province. Wild. Seed.
483020. CC 64. Cyprus. Latitude: 34 deg 51 m N; Longitude: 033 deg 30 m E. Collected May 27, 1983. North, 1 km from Kivisil, Larnaca Province. 100m. Wild. Seed.
483021. CC 66. Cyprus. Latitude: 34 deg 54 m N; Longitude: 033 deg 24 m E. Collected May 27, 1983. North, 4km from Korncs, Larnaca Province. 380m. Wild. Seed.
483022. CC 82. Cyprus. Latitude: 35 deg 10 m N; Longitude: 032 deg 32 m E. Collected May 31, 1983. Paliambela, Paphos Province. 10m. Local name Shinopcs. Wild. Seed.
483023. CC 84. Cyprus. Latitude: 35 deg 10 m N; Longitude: 032 deg 35 m E. Collected May 31, 1983. North, 1 km from Pakhyamos, Nicosia Province. 100m. Wild. Seed.
483024. CC 90. Cyprus. Latitude: 35 deg 02 m N; Longitude: 032 deg 24 m E. Collected May 31, 1983. Sand and beach gravel area, Lachi, Paphos Province. 2m. Wild. Seed.
483025. CC 94. Cyprus. Latitude: 35 deg 03 m N; Longitude: 032 deg 22 m E. Collected May 31, 1983. North-northwest 3km from Baths of Aphrodite, Paphos Province. 20m. Wild. Seed.
483026. CC 97. Cyprus. Latitude: 35 deg 03 m N; Longitude: 032 deg 22 m E. Collected May 31, 1983. North-northwest 3km from Baths of Aphrodite, Paphos Province. 20m. Wild. Seed.
483027. CC 100. Cyprus. Latitude: 34 deg 57 m N; Longitude: 032 deg 28 m E. Collected May 31, 1983. South, 4km from Skoulli, Paphos Province. 140m. Wild. Seed.
483028. CC 112. Cyprus. Latitude: 34 deg 54 m N; Longitude: 032 deg 20 m E. Collected June 01, 1983. East-southeast, 5km from Peyia, Paphos Province. 60m. Wild. Seed.
483029. CC 118. Cyprus. Latitude: 34 deg 44 m N; Longitude: 032 deg 32 m E. Collected June 01, 1983. Northeast, 1 km from Anarita, Paphos Province. 80m. Wild. Seed.
483030. CC 120. Cyprus. Latitude: 34 deg 45 m N; Longitude: 032 deg 33 m E. Collected June 01, 1983. Southwest, 2km from Anarita, Paphos Province. 160m. Wild. Seed.
483031. CC 126. Cyprus. Latitude: 34 deg 50 m N; Longitude: 032 deg 35 m E. Collected June 01, 1983. Southwest, 1 km from Amargeti, Paphos Province. 420m. Wild. Seed.

483007 TO 483039-continued

483032. CC 139. Cyprus. Latitude: 34 deg 41 m N; Longitude: 032 deg 35 m E. Collected June 02, 1983. Northwest, 4km from Kouklia, Paphos Province. 10m. Wild. Seed.
483033. CC 147. Cyprus. Latitude: 34 deg 40 m N; Longitude: 032 deg 51 m E. Collected June 02, 1983. East, 4km from Episkopi, Limassol Province. 120m. Wild. Seed.
483034. CC 150. Cyprus. Latitude: 34 deg 39 m N; Longitude: 032 deg 55 m E. Collected June 02, 1983. Dried river bed, 1 km northwest of Episkopi, Limassol Province. 30m. Wild. Seed.
483035. CC 156. Cyprus. Latitude: 34 deg 48 m N; Longitude: 033 deg 20 m E. Collected June 02, 1983. Ruins of Neolithic village, 1 km east of Khirokitia, Larnaca Province. 200m. Wild. Seed.
483036. CC 159. Cyprus. Latitude: 35 deg 09 m N; Longitude: 033 deg 23 m E. Collected June 03, 1983. English School, Nicosia, Nicosia Province. 160m. Wild. Seed.
483037. CC 160. Cyprus. Latitude: 35 deg 01 m N; Longitude: 032 deg 44 m E. Collected July 10, 1983. Southeast, 2km from Chakistra, Nicosia Province. 960m. Wild. Seed.
483038. CC 162. Cyprus. Latitude: 34 deg 56 m N; Longitude: 032 deg 54 m E. Collected July 29, 1983. Northeast, 3km from Troodos, Limassol Province. 1600m. Wild. Seed.
483039. CC 163. Cyprus. Latitude: 34 deg 56 m N; Longitude: 032 deg 54 m E. Collected July 29, 1983. Northeast, 3km from Troodos, Limassol Province. 1600m. Wild. Seed.

483040 TO 483045. *Avena sativa* L. (Poaceae) Common oat.

From Australia. Donated by Australian Wheat Collection; Tamworth, New South Wales 2340.  
Received November 1983.

483040. AUS 99069. 'Hill'. Australia. Cultivar. Seed.
483041. AUS 99070. 'Bulban'. Australia. Cultivar. Seed.
483042. AUS 99071. 'Carbeen'. Australia. Cultivar. Seed.
483043. AUS 99078. 'Nile'. Australia. Cultivar. Seed.
483044. AUS 99079. 'Lort'. Australia. Cultivar. Seed.
483045. AUS 99085. 'Barnah'. Australia. Cultivar. Seed.

483046 TO 483049. *Hordeum vulgare* L. (Poaceae) Barley.

From Australia. Donated by Australian Wheat Collection; Tamworth,  
New South Wales 2340.  
Received November 1983.

- 483046. AUS 99072. 'Bandulla'. Australia. Cultivar. Seed.
- 483047. AUS 99074. 'Cantala'. Australia. Cultivar. Seed.
- 483048. AUS 99075. 'Grimmet'. Australia. Cultivar. Seed.
- 483049. AUS 99088. 'Schooner'. Australia. Cultivar. Seed.

483050 TO 483064. *Triticum aestivum* L. (Poaceae) Common wheat.

From Australia. Donated by Australian Wheat Collection; Tamworth,  
New South Wales 2340.  
Received November 1983.

- 483050. AUS 21113. 'Sunkota'. Australia. Spring Annual. Cultivar. Seed.
- 483051. AUS 21229. 'Katyil'. Australia. Spring Annual. Cultivar. Seed.
- 483052. AUS 21533. 'Hartog'. Australia. Spring Annual. Cultivar. Seed.
- 483053. AUS 21534. 'Flinders'. Australia. Spring Annual. Cultivar. Seed.
- 483054. AUS 21820. 'Suneca'. Australia. Spring Annual. Cultivar. Seed.
- 483055. AUS 21821. 'Matong'. Australia. Spring Annual. Cultivar. Seed.
- 483056. AUS 21822. 'Hyden'. Australia. Spring Annual. Cultivar. Seed.
- 483057. AUS 21823. 'Gutha'. Australia. Spring Annual. Cultivar. Seed.
- 483058. AUS 21905. 'Takari'. Australia. Spring Annual. Cultivar. Seed.
- 483059. AUS 21960. 'Bass'. Australia. Spring Annual. Cultivar. Seed.
- 483060. AUS 21961. 'King'. Australia. Winter Annual. Cultivar. Seed.

483050 TO 483064-continued

483061. AUS 21962. 'Torres'. Australia. Spring Annual. Cultivar. Seed.

483062. AUS 22110. 'Osprey'. Australia. Winter Annual. Cultivar. Seed.

483063. AUS 22111. 'Quarrion'. Australia. Winter Annual. Cultivar. Seed.

483064. AUS 22177. 'Sunstar'. Australia. Spring Annual. Cultivar. Seed.

483065. *Triticum durum* Desf. (Poaceae) Durum wheat.

From Australia. Donated by Australian Wheat Collection; Tamworth, New South Wales 2340. Received November 1983.

AUS 21819. 'Kamilaroi'. Australia. Spring type. Cultivar. Seed.

483066. X *Triticosecale* (Poaceae) *Triticale*.

From Australia. Donated by Australian Wheat Collection; Tamworth, New South Wales 2340. Received November 1983.

AUS 99087. 'Currency'. Australia. Cultivar. Seed.

483067. *Nicotiana rustica* L. (Solanaceae).

From Italy. Donated by Sezione de Genetica, Istituto Sperimentale per il Tabacco; Scafati (Salerno). Received through FAO, Rome, Italy. Received November 1983.

Italy. FAO 60.893. Cultivated. Seed.

483068. *Nicotiana rustica* L. (Solanaceae).

From France. Donated by Institut Experimental du Tabac de la SEITA; Bergerac. Received through FAO, Rome, Italy. Received November 1983.

Asiatica. France. FAO 60.694. Cultivated. Seed.

483069. *Nicotiana tabacum* L. (Solanaceae) Tobacco.

From France. Donated by Institut Experimental du Tabac de la SEITA; Bergerac. Received through FAO, Rome, Italy.  
Received November 1983.

Lattaquie 92. France. FAO 60.693. Cultivated. Seed.

483070. *Oryza sativa* L. (Poaceae) Rice.

From United States. Donated by Rice Research Station, Louisiana State University; Crowley, Louisiana.  
Received November 1983.

'Toro-2'. United States. CI 9902/3/'Rexoro'/'Lacrosse'/'13-D. Plants shorter, maturity 20 days earlier and more yield than Toro. Extra long grain, low amylose content, high head rice milling yield. Resistant to the two predominant races of blast (*Pyricularia oryzae*), to brown leaf spot (*Helminthosporium oryzae*), and leaf smut (*Entyloma oryzae*). Moderately susceptible to sheath blight (*Rhizoctonia solani*). Very susceptible to the physiological disease 'straighthead'. Cultivar. Seed.

483071. *Glycine soja* Sieb. & Zucc. (Fabaceae) Wild soybean.

From China, Peoples Repub of. Donated by Hu, T.S.; Institute of Soils and Fertilizers, Chinese Academy of Agricultural Sciences; Beijing. Received through H.H. Keyser, Nitrogen Fixation & Soybean Genetics Lab, Beltsville, MD 20705.  
Received November 1983.

China, Peoples Repub of. Collected 1980. Laiyang, Shantung Province. Wild. Seed.

483072 TO 483075. *Lupinus albus* L. (Fabaceae) White lupine.

From Syria. Donated by ICARDA; Aleppo.  
Received November 1983.

483072. IFLU 29. Syria. Cultivated. Seed.

483073. IFLU 31. Morocco. Cultivated. Seed.

483074. IFLU 32. Lebanon. Cultivated. Seed.

483075. IFLU 33. Syria. Cultivated. Seed.

483076. *Lupinus angustifolius* L. (Fabaceae) European blue lupine.

From Syria. Donated by ICARDA; Aleppo.

483076-continued

Received November 1983.

IFLU 30. Syria. Wild. Seed.

483077. *Helianthus annuus* L. (Asteraceae) Sunflower.

From United States. Donated by Miller, J.F.; USDA-ARS, Department of Agronomy, North Dakota State University; Fargo, North Dakota.

Received December 1983.

'Pervenets'. Soviet Union. Open-pollinated type. Seed oil contains 80 percent oleic fatty acid. Cultivar. Seed.

483078. *Nicotiana tabacum* L. (Solanaceae) Tobacco.

From Iran. Donated by Iranian Tobacco Institute; Shiraz. Received through Seed Exchange Service, FAO, Rome, Italy.

Received December 1983.

Shirazi. Iran. FAO 61.033. Cultivated. Seed.

483079. *Agropyron trachycauim* (Link) Malte ex H. F. Lewis (Poaceae) Slender wheatgrass.

From United States. Donated by Upper Colorado Environmental Plant Center, USDA-SCS; Meeker, Colorado. Received through National Plant Materials Center, SCS, Beltsville, MD. Received December 1983.

T 37032. 'San Luis'. United States. Collected August 17, 1975. San Luis Valley, Rio Grande County, Colorado. 2280m. Collected by G. Niner. Soil stabilizer on slopes and disturbed sites above 2000m. Maturity later than Primar. Seed shattering slight. Perennial Herb. Cultivar. Seed.

483080. *Vigna marina* (Eurm.) Merr. (Fabaceae).

From China, Republic of. Donated by Council for Agricultural Planning and Development Executive Yuan; Taipei, Taiwan 107.

Received December 1983.

China, Republic of. Sandy beach of I-lan, Taiwan. Plants native to Taiwan, well-adapted to sandy soil, tolerate wet and dry conditions, competitive. Flowers in spring and summer. Young pods edible. Mature pods black. Palatable. Wild. Seed.

483081. *Vigna minima* (Horb.) Ohwi and Ohashi (Fabaceae).

From China, Republic of. Donated by Council for Agricultural Planning and Development Executive Yuan; Taipei, Taiwan 107.

Received December 1983.

China, Republic of. Sandy river bank near Taipei. Plants native to Taiwan, well-adapted to sandy soil, tolerate wet and dry conditions, competitive. Palatable. Wild. Seed.

483082 TO 483084. *Glycine max* (L.) Merr. (Fabaceae) Soybean.

From Korea, Republic of. Donated by Office of Rural Development; Suweon. Received through T. Hymowitz, Univ. of Illinois and S.M. Lim, USDA-ARS, Urbana, Illinois.

Received December 1983.

483082. Baekchun. Korea, Republic of. Cultivated. Seed.

483083. L-B. Korea, Republic of. Cultivated. Seed.

483084. Suweon 97. Korea, Republic of. SS7006/SS5907. Yield high. Cultivated. Seed.

483085 TO 483086. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Malawi. Donated by Chitedze Agricultural Research Station, Ministry of Agriculture; Lilongwe.

Received December 1983.

483085. 'RG 1'. Malawi. Resistant to rosette virus. Cultivar. Seed.

483086. MB 662. Malawi. Genotype with lower calcium requirement. Breeding Material. Seed.

483087 TO 483088. *Zea mays* L. (Poaceae) Field corn.

From United States. Donated by Bonsall, W.; Scatterseed Project; Farmington, Maine.

Received October 1983.

483087. Mohawk Round Nose. United States. Rooseveltown, New York. Steve McComber. Upper St. Lawrence River Valley, Rooseveltown, New York. Floury type. Maturity about 120 days. Primitive Cultivar. Seed.

483088. Wampum Flint. United States. Rooseveltown, New York. Steve McComber. Upper St. Lawrence River Valley,

483087 TO 483088--continued

Rooseveltown, New York. Maturity about 120 days.  
Primitive Cultivar. Seed.

483089 TO 483090. *Amaranthus* sp. (Amaranthaceae).

From India. Donated by NBPGR; New Delhi.  
Received January 1984.

483089. IC-38566. India. Kalpa, Kinnaur. Collected by B.D. Joshi.  
Used for baking bread. Popped seeds eaten with milk and  
sugar, sugar, or syrup. Leaves used as vegetable and as  
purgative. Fermented seeds used as a beverage. Local name  
Dhankar. Primitive Cultivar. Seed.

483090. IC-42311-2. India. Govindghat, Chancii. Collected by B.D.  
Joshi. Used for baking bread. Popped seeds eaten with  
milk and sugar, sugar, or syrup. Leaves used as vegetable  
and as purgative. Dried stems burned (folklore). Local  
name Marchu. Primitive Cultivar. Seed.

483091 TO 483095. *Arachis hypogaea* L. (Fabaceae) Peanut.

From Soviet Union. Donated by VIR; Leningrad.  
Received January 1984.

483091. VIR 379. Bulgaria. Cultivated. Seed.

483092. VIR 1115. Guinea. Local red type. Cultivated. Seed.

483093. VIR 1469. Spain. Local name Colorado correntino.  
Cultivated. Seed.

483094. VIR 1501. Philippines. Cultivated. Seed.

483095. VIR 1502. India. Cultivated. Seed.

483096. *Helianthus annuus* L. (Asteraceae) Sunflower.

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'Sunfola 68-2'. Australia. Selection from Peredovik.  
Open-pollinated type. Cultivar. Seed.



Abelmoschus esculentus	481973-482043	Amaranthus spinosus	482057-482059
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<i>Primula kisoana</i>	479527		<i>Scutellaria</i> sp.	479573
<i>Primula takedana</i>	479528		<i>Securigera securidaca</i>	477126
<i>Prunus fruticosa</i>	478003		<i>Sedum</i> sp.	479574
<i>Prunus minutiflora</i>	477969		<i>Sesamum indicum</i>	481874-481879
<i>Prunus ssiori</i>	479529		<i>Sesbania grandiflora</i>	477302
<i>Prunus texana</i>	477970		<i>Setaria</i> sp.	478481-478482,
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<i>Psophocarpus palustris</i>	476876,		<i>Shepherdia argentea</i>	478005
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<i>Psophocarpus scandens</i>	476875,		<i>Sinapidendron bourgeaui</i>	479212
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<i>Psophocarpus tetragonolobus</i>			<i>Solanum juzepczukii</i>	478483
477137-477284			<i>Solanum melongena</i>	476415,
<i>Pterocarya rhoifolia</i>	479530		478388-478392	
<i>Pyracantha angustifolia</i>	479531-		<i>Solanum</i> sp.	478485
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