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United States
Department of
Agriculture

Agricultural
Research
Service

Plant Inventory No. 198, Part II

Plant Materials Introduced
July 1 to December 31, 1989
(Nos. 532833 to 536644)



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Plant Inventory No. 198 is divided into two parts that encompass PIs 527507 - 536644 for calendar year 1989. Questions about data organization and proper plant identification should be directed to the authors. This is not a listing of plant material for distribution.

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Issued June 1990

PI 532833 to 532834. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Wilcox, J.R., USDA-ARS, Dept. of Agronomy, Purdue University, West Lafayette, Indiana, United States; and Cavins, J.F., Northern Regional Res.Ctr., USDA-ARS, 1815 N. University Street, Peoria, Illinois, United States. **remarks:** Developed and released cooperatively by USDA-ARS and Purdue Univ. Agric. Exp. Stn. Received June 01, 1989.

PI 532833 **donor id:** C1726. **origin:** United States. **pedigree:** M2 plants of 'Century' treated with ethyl methanesulfonate. **other id:** GP-116. **group:** CSR-SOYBEAN. **remarks:** Palmitic acid content low (8.5%) because of fap1 allele. Plants similar to 'Century' in height, lodging, and oil and protein content of seed. Maturity group II. Flowers purple. Pubescence tawny. Pods brown. Seeds shiny yellow with black hila. Seed yield of 3050 kg per hectare (mean of C1726 and C1727) compared to 3440 kg per hectare for 'Century' in Indiana tests. Annual. Breeding Material. Seed.

PI 532834 **donor id:** C1727. **origin:** United States. **pedigree:** M2 plants of 'Century' treated with ethyl methanesulfonate. **other id:** GP-117. **group:** CSR-SOYBEAN. **remarks:** Palmitic acid content high (17.2%) because of fap2 allele. Plants similar to 'Century' in height, lodging, and oil and protein content of seed. Maturity group II. Flowers purple. Pubescence tawny. Pods brown. Seeds shiny yellow with black hila. Seed yield of 3050 kg per hectare (mean of C1726 and C1727) compared to 3440 kg per hectare for 'Century' in Indiana tests. Annual. Breeding Material. Seed.

PI 532835 to 532836. *Nicotiana tabacum* L. SOLANACEAE Tobacco

Donated by: Rufty, R.C., Dept. of Crop Science, North Carolina State University, Raleigh, North Carolina, United States. **remarks:** Developed by North Carolina State University and released by North Carolina Agric. Research Service in April, 1987. Received June 01, 1989.

PI 532835 **donor id:** NC-BMR 42. **origin:** United States. **pedigree:** Ovens 62/McNair 944. **other id:** GP-40. **group:** CSR-TOBACCO. **other id:** DH-42. **remarks:** Double-haploid line resistant to blue mold. Nicotine and reducing sugars concentration acceptable. Quality grade index and physical characteristics of cured leaves lower than McNair 944 (blue mold susceptible). Resistant to fungicide Metalaxyl. **disease resistance:** Blue mold(*Peronospora tabacina*). Annual. Breeding Material. Seed.

PI 532835 to 532836-continued

PI 532836 donor id: NC-BMR 90. origin: United States. pedigree: Ovens 62/KY 17. other id: GP-41. group: CSR-TOBACCO. other id: DH-90. remarks: Double-haploid line resistant to blue mold. Lacks burly tobacco color, but contains burly germplasm. Resistant to fungicide Metalaxyl. disease resistance: Blue mold(Peronospora tabacina). Annual. Breeding Material. Seed.

PI 532837. Saccharum hybrid POACEAE Sugarcane

Donated by: Glaz, B., Sugarcane Field Station, USDA-ARS, Canal Point, Florida, United States. remarks: Developed cooperatively by USDA-ARS, University of Florida, and Florida Sugarcane League, Inc. and released in fall of 1987. Received June 01, 1989.

origin: United States. cultivar: CP 80-1827. pedigree: CP 70-1133/CP 73-1311. other id: CV-77. group: CSR-SUGARCANE. remarks: Stalk diameter large. Early vigor good. Growth habit erect. Flowering early December. Average sugar yield per hectare exceeded those of CP 70-1133 and CP 72-1210. Millability 0.992. Fiber content 9.1%. disease resistance: Sugarcane mosaic virus(Bipolaris sacchari). Smut(Ustilago scitaminea), rust(Puccinia melanocephala). Leaf scald(Xanthomonas albilineans). Perennial. Cultivar. Plant.

PI 532838. Saccharum hybrid POACEAE Sugarcane

Donated by: Miller, J.D., Sugarcane Field Station, USDA-ARS, Canal Point, Florida, United States. remarks: Developed cooperatively by USDA-ARS, University of Florida, and Florida Sugarcane League, Inc. and released in fall of 1987. Received June 01, 1989.

origin: United States. cultivar: CP 80-1557. other id: CV-78. group: CSR-SUGARCANE. remarks: Stalk diameter large. Early vigor good. Growth habit recumbent. Flowering late December to early January. Stalk weight and cane per hectare higher, sucrose content slightly less than CP 70-1133 and CP 72-1210. Hand cutting faster. Millability rating 1.016. Fiber content 9.0%. disease resistance: Sugarcane mosaic virus(Bipolaris sacchari). Smut(Ustilago scitaminea), rust(Puccinia melanocephala). Leaf scald(Xanthomonas albilineans). Perennial. Cultivar. Plant.

PI 532839. *Cucumis callosus* (Rottl.) Cogn. CUCURBITACEAE

Donated by: Dhillon, N.P.S., Vegetable Research Station, Punjab Agricultural University, Jalandhar 144 001, India. **remarks:** Received through H.M. Munger, Cornell Univ., Ithaca, New York. Received May 08, 1989.

origin: India. **local name:** Chibbar. **remarks:** Vine with numerous fruits. Fruit small. Flesh green. Inedible. Keeping quality good. Distributed in fields and roadsides throughout countryside. Wild. Seed.

PI 532840 to 532844. *Cucumis melo* L. CUCURBITACEAE

Donated by: Dhillon, N.P.S., Vegetable Research Station, Punjab Agricultural University, Jalandhar 144 001, India. **remarks:** Received through H.M. Munger, Cornell Univ., Ithaca, New York. Received May 08, 1989.

PI 532840 **origin:** India. **local name:** Phut. **remarks:** Snapmelon type. Fruit large, ruptures at maturity. Taste sourish. Cultivated. Seed.

PI 532841 **origin:** India. **local name:** Phut. **remarks:** Snapmelon type. Fruit large, ruptures at maturity. Taste sourish. Cultivated. Seed.

PI 532842 **origin:** India. **local name:** Phut. **remarks:** Snapmelon type. Fruit large, ruptures at maturity. Taste sourish. Cultivated. Seed.

PI 532843 **origin:** India. **local name:** Tar. **remarks:** Longmelon type. Fruits long (30cm), thin, cylindrical and green. Flesh light green. Salad crop. **received as:** *C. melo* var. *utilissimus*. Cultivated. Seed.

PI 532844 **origin:** India. **cultivar:** HARA MADHU. **remarks:** Muskmelon type. Fruits round, some tapering. Skin light yellow with green stripes. Flesh green, juicy. TSS=12% (very sweet). Cultivar. Seed.

PI 532845 to 532848. *Sesamum indicum* L. PEDALIACEAE Sesame

Donated by: Li, D., Beijing Botanical Garden, Institute of Botany, Chinese Academy of Sciences, Xiangshan, Beijing, Peoples Republic of China. **remarks:** Received through P. F. Knowles, 5703 Nakat Wy., Blaine, WA. Received January 30, 1989.

PI 532845 **donor id:** C-11. **origin:** China, Peoples Repub of. **cultivar:** WU ZUO LIAN. **collector:** P. F. Knowles. **collector id:** C-11. **locality:** Shan Xian. Cultivar. Seed.

PI 532845 to 532848-continued

PI 532846 **donor id:** C-12. **origin:** China, Peoples Repub of.
cultivar: HEI. **collector:** P. F. Knowles. **collector id:**
C-12. **locality:** Shan Xian. **Cultivar.** Seed.

PI 532847 **donor id:** C-13. **origin:** China, Peoples Repub of.
pedigree: Hei/Wu(84-2). **collector:** P. F. Knowles.
collector id: C-13. **remarks:** 1984 seed. Cultivated.
Seed.

PI 532848 **donor id:** C-14. **origin:** China, Peoples Repub of.
pedigree: Hei/Wu(84-1). **collector:** P. F. Knowles.
collector id: C-14. **remarks:** 1984 seed. Cultivated.
Seed.

PI 532849. *Oryza sativa* L. POACEAE Rice

Donated by: Rutger, J.N., USDA-ARS, Delta States Research Center,
P.O. Box 225, Stoneville, Mississippi, United States. **remarks:**
Cooperative development by USDA-ARS, the Calif. Co-op. Rice Res.
Foundation, Inc., and the Calif. Agric. Exp. Station- Davis. Process
of incorporating the eui gene into the pollen fertility restoring
parent (R-line) patented under No. 4,351,130. Received April 27,
1989.

origin: United States. **pedigree:**
M9/Terso[(76:4512)/2/ED7(Calrose 76 Sel)]. **other id:**
Lit. ref. **source:** Crop Sci. 21:373-376.1981. **remarks:**
Plants recessive tall type with elongated uppermost
internode (eui gene). Proposed useful element in hybrid
seed production. Incorporation of the eui gene into
pollen fertility restoring parents produces semi-dwarf F1
generation when crossed with a semidwarf female. Panicle
length 12% higher than normal semidwarf parent. Annual.
Breeding Material. Seed.

PI 532850. *Lens culinaris* Medikus FABACEAE Lentil

Donated by: Kaiser, W.J., Western Regional PI Station, Washington
State University, Pullman, Washington, United States. Received
January 23, 1989.

donor id: 18. **origin:** Pakistan. **collected:** April 9,
1986. **locality:** Market (bazar), Peshawar. **remarks:**
Seeds small, orange type. Cultivated. Seed.

PI 532851 to 532858. *Papaver somniferum* L. PAPAVERACEAE

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

- PI 532851 donor id: 25. origin: Pakistan. collected: April 02, 1986. locality: Ahpara market, Islamabad. restricted: NARC. Cultivated. Seed.
- PI 532852 donor id: 26. origin: Pakistan. collected: April 03, 1986. locality: Friday (Jomah) market, Islamabad. restricted: NARC. Cultivated. Seed.
- PI 532853 donor id: 27. origin: Pakistan. collected: April 03, 1986. locality: Friday (Jomah) market, Islamabad. restricted: NARC. Cultivated. Seed.
- PI 532854 donor id: 28. origin: Pakistan. collected: April 03, 1986. locality: Friday (Jomah) market, Islamabad. restricted: NARC. Cultivated. Seed.
- PI 532855 donor id: 29. origin: Pakistan. collected: April 03, 1986. locality: Friday (Jomah) market, Islamabad. restricted: NARC. Cultivated. Seed.
- PI 532856 donor id: 30. origin: Pakistan. collected: April 09, 1986. locality: Market (Bazar), Peshawar. restricted: NARC. Cultivated. Seed.
- PI 532857 donor id: 31. origin: Pakistan. collected: April 09, 1986. locality: Market (Bazar), Peshawar. restricted: NARC. Cultivated. Seed.
- PI 532858 donor id: 32. origin: Pakistan. collected: April 13, 1986. locality: Kohat Bazar, Kohat District, NW Frontier Province. restricted: NARC. Cultivated. Seed.

PI 532859 to 532867. *Trigonella foenum-graecum* L. FABACEAE Fenugreek

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

- PI 532859 donor id: 33. origin: Pakistan. cultivar: METHI KASURI. collected: April 2, 1986. locality: Market, Islamabad. remarks: Used as a green vegetable. Cultivar. Seed.
- PI 532860 donor id: 34. origin: Pakistan. collected: April 3, 1986. locality: Friday (Jomah) market, Islamabad. Cultivated. Seed.

PI 532859 to 532867-continued

- PI 532861 donor id: 35. origin: Pakistan. collected: April 3, 1986. locality: Friday (Jomah) market, Islamabad. Cultivated. Seed.
- PI 532862 donor id: 37. origin: Pakistan. collected: April 3, 1986. locality: Friday (Jomah) market, Islamabad. Cultivated. Seed.
- PI 532863 donor id: 39. origin: Pakistan. collected: April 9, 1986. locality: Market (Bazar), Peshawar. Cultivated. Seed.
- PI 532864 donor id: 48. origin: Pakistan. collected: April 13, 1986. locality: Kohat Bazar, Kohat District, NWFP. Cultivated. Seed.
- PI 532865 donor id: 49. origin: Pakistan. collected: April 13, 1986. locality: Fatehjang market, Rawalpindi District, Punjab. Cultivated. Seed.
- PI 532866 donor id: 51. origin: Pakistan. collected: April 14, 1986. locality: Bannu market, Bannu District, NWFP. Cultivated. Seed.
- PI 532867 donor id: 63. origin: India. collected: March 29, 1986. locality: Mondha, Andhra Pradesh. Cultivated. Seed.

PI 532868. *Vicia faba* L. FABACEAE Broadbean

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

donor id: 52. origin: Pakistan. collected: April 9, 1986. locality: Market (Bazar), Peshawar. Cultivated. Seed.

PI 532869 to 532871. *Vicia* sp. FABACEAE

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

PI 532869 donor id: 53. origin: Pakistan. collected: April 11, 1986. locality: Sandy, rocky soil, edge of wheat and chickpea fields, Nizampur road, Punjab Province. elevation: 762m. Cultivated. Seed.

PI 532869 to 532871-continued

PI 532870 **donor id:** 54. **origin:** Pakistan. **collected:** April 11, 1986. **locality:** Sandy soil, Gram Breeding Substation, Attock, Punjab Province. **elevation:** 304.8m. Cultivated. Seed.

PI 532871 **donor id:** 57. **origin:** Pakistan. **collected:** April 13, 1986. **locality:** Fatehjang-jand road, Kawaljundi District, Punjab Province. **elevation:** 609.6m. Cultivated. Seed.

PI 532872. *Hibiscus cannabinus* L. MALVACEAE Kenaf

Donated by: Tu, C., Taiwan Agricultural Research Institute, (IARI), 189 Chung-Cheng Road, Wu-feng 41301, Taichung, Taiwan. Received April 26, 1989.

origin: Taiwan. **cultivar:** TAINUNG NO. 2. **other id:** Taichung No. 2. **remarks:** Stems green. Leaves deeply lobed. Yield higher than Tainung No. 1 (PI 365441). **disease resistance:** Anthracnose, Fusarium wilt. Cultivar. Seed.

PI 532873 to 532874. *Hibiscus cannabinus* L. MALVACEAE Kenaf

Donated by: Wilson, F.D., USDA-ARS, Everglades Experiment Station, University of Florida, Belle Glade, Florida, United States. **remarks:** Developed cooperatively by the Crops Research Division-USDA and the University of Florida and released by CRD-USDA in April, 1962. Received April 18, 1963.

PI 532873 **origin:** United States. **cultivar:** EVERGLADES 41. **pedigree:** Selection from El Salvador (PI 207883). **other id:** BG 52-41. **remarks:** Plants short day flowering, producing a fiber crop in 90-100 days in everglade peat. Highly adaptable to mechanical harvesting. Superior self-defoliating habit. Stalks small, even sized. Stems green, tinged with pink. Leaves shallowly lobed. Growth rate rapid. Seed production best in Southern Florida. No natural resistance to *Sclerotium rolfsii*. **disease resistance:** Anthracnose (*Colletotrichum hibisci*). Some tolerance to a root disease-nematode complex. Annual. Cultivar. Seed.

PI 532873 to 532874-continued

PI 532874 **origin:** United States. **cultivar:** EVERGLADES 71.
pedigree: Selection from El Salvador (PI 207883). **other id:** BG 52-71. **remarks:** Plants short day flowering, producing a fiber crop in 90-100 days in everglade peat. Highly adaptable to mechanical harvesting. Superior self-defoliating habit. Stems green, tinged with pink. Leaves deeply lobed. Growth rate rapid. Seed production best in South Florida. Seed yield and stem (fiber) yield higher than for Everglades 41, especially in fumigated soils. No known resistance to *Sclerotium rolfsii*.
disease resistance: Anthracnose (*Colletotrichum hibisci*). some tolerance to a root disease-nematode complex.
Annual. Cultivar. Seed.

PI 532875 to 532890. *Sorghum bicolor* (L.) Moench POACEAE Sorghum

Donated by: Atkins, R.E., Dept. of Agronomy, Iowa State University, Ames, Iowa, United States. **remarks:** Released by the Iowa Agric. and Home Economics Exp. Station in 1982. Received April 24, 1989.

PI 532875 **donor id:** IA1. **origin:** United States. **pedigree:** Redbine-58/NB9040. **other id:** PL-74. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1339. **other id:** NSSL 167193. **remarks:** Plant height medium-short. Maturity medium. Panicles medium compact. Awned. Glumes sienna colored. Seeds dark red. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.

PI 532876 **donor id:** IA2. **origin:** United States. **pedigree:** KS24/3/CK60/Redlan/2/TX7078. **other id:** PL-75. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1342. **other id:** NSSL 167194. **remarks:** Plant height medium. Maturity medium. Panicles medium open. Awned. Glumes mahogany colored. Seeds orange. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.

PI 532877 **donor id:** IA3. **origin:** United States. **pedigree:** CK60/3/CK60/Redlan/Wheatland/2/TX7078. **other id:** PL-76. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1344. **other id:** NSSL 167195. **remarks:** Plant height medium. Maturity medium late. Panicles medium open. Awnless. Glumes sienna colored. Seeds orange. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.

PI 532875 to 532890-continued

- PI 532878 **donor id:** IA4. **origin:** United States. **pedigree:** CK60/3/CK60/Redlan/2/Redbine-60. **other id:** PL-77. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1345. **other id:** NSSL 167196. **remarks:** Plant height medium-tall. Maturity medium late. Panicles medium open. Awned. Glumes mahogany colored. Seeds orange. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532879 **donor id:** IA5. **origin:** United States. **pedigree:** CK60/3/Wheatland/Redlan/2/Redbine-60. **other id:** PL-78. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1348. **other id:** NSSL 167197. **remarks:** Plant height medium. Maturity medium. Panicles medium compact. Awnless. Glumes mahogany colored. Seeds orange. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532880 **donor id:** IA6. **origin:** United States. **pedigree:** CK60/3/Wheatland/Redlan/2/Redbine-60. **other id:** PL-79. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1349. **other id:** NSSL 167198. **remarks:** Plant height medium-short. Maturity medium early. Panicles medium open. Awnless. Glumes sienna colored. Seeds orange. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532881 **donor id:** IA7. **origin:** United States. **pedigree:** KS24/3/Redlan/Wheatland/2/Caprock. **other id:** PL-80. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1354. **other id:** NSSL 167199. **remarks:** Plant height medium-tall. Maturity medium early. Panicles medium closed. Awnless. Glumes mahogany colored. Seeds orange. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532882 **donor id:** IA8. **origin:** United States. **pedigree:** KS24/TAM2553. **other id:** PL-81. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1358. **other id:** NSSL 167200. **remarks:** Plant height medium. Maturity medium. Panicles medium open. Awnless. Glumes mahogany colored. Seeds dark red. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.

PI 532875 to 532890-continued

- PI 532883 **donor id:** IA9. **origin:** United States. **pedigree:** Martin/TAM2554. **other id:** PL-82. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1359. **other id:** NSSL 167201. **remarks:** Plant height medium. Maturity medium early. Panicles medium closed. Awnless. Glumes mahogany colored. Seeds light red. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532884 **donor id:** IA10. **origin:** United States. **pedigree:** KS24/TAM2554. **other id:** PL-83. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1361. **other id:** NSSL 167202. **remarks:** Plant height medium. Maturity medium. Panicles medium closed. Awnless. Glumes mahogany colored. Seeds orange. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532885 **donor id:** IA11. **origin:** United States. **pedigree:** Martin/TAM2557. **other id:** PL-84. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1363. **other id:** NSSL 167203. **remarks:** Plant height medium. Maturity medium late. Panicles medium open. Awned. Glumes mahogany colored. Seeds light red. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532886 **donor id:** IA12. **origin:** United States. **pedigree:** KS24/TAM2557. **other id:** PL-85. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1364. **other id:** NSSL 167204. **remarks:** Plant height medium. Maturity medium late. Panicles medium closed. Awnless. Glumes sienna colored. Seeds dark red. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532887 **donor id:** IA13. **origin:** United States. **pedigree:** KS24/TAM2557. **other id:** PL-86. **source:** Lit ref:Crop Sci.22:1980.1982. **group:** CSR-SORGHUM. **other id:** 80A1365. **other id:** NSSL 167205. **remarks:** Plant height medium. Maturity medium late. Panicles medium open. Awnless. Glumes sienna colored. Seeds dark red. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.

PI 532875 to 532890-continued

- PI 532888 **donor id:** IA14. **origin:** United States. **pedigree:** KS24/SD65331. **other id:** PL-87. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1393. **other id:** NSSL 167206. **remarks:** Plant height medium. Maturity medium. Panicles medium open. Awnless. Glumes straw colored. Seeds dark red. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532889 **donor id:** IA15. **origin:** United States. **pedigree:** Martin/2/Redbine-58/AK9-2. **other id:** PL-88. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1395. **other id:** NSSL 167207. **remarks:** Plant height medium. Maturity medium early. Panicles medium closed. Awnless. Glumes mahogany colored. Seeds light red. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.
- PI 532890 **donor id:** IA16. **origin:** United States. **pedigree:** CK60/2/Redbine-58/AK9-2. **other id:** PL-89. **source:** Lit ref:Crop Sci.22:1280.1982. **group:** CSR-SORGHUM. **other id:** 80A1396. **other id:** NSSL 167208. **remarks:** Plant height medium. Maturity medium late. Panicles medium closed. Awnless. Glumes mahogany colored. Seeds orange. Fertility restorer line with good combining ability for yield. Breeding Material. Seed.

PI 532891 to 532894. *Triticum aestivum* L. POACEAE Common wheat

Donated by: Metzger, R.J., USDA-ARS, Dept.of Crop Science, Oregon State University, Corvallis, Oregon, United States. Received January 01, 1987.

- PI 532891 **donor id:** M82-3419. **origin:** United States. **received as:** *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532892 **donor id:** H83-1582-3. **origin:** United States. **received as:** *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532893 **donor id:** H83-1643-2. **origin:** United States. **received as:** *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532894 **donor id:** H83-1543-3. **origin:** United States. **received as:** *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.

PI 532895 to 532911. *Triticum aestivum* L. POACEAE Common wheat

Donated by: Metzger, R.J., USDA-ARS, Dept. of Crop Science, Oregon State University, Corvallis, Oregon, United States. Received January 01, 1987.

- PI 532895 donor id: H83-1501-3. origin: Turkey. other id: HD1, 79TK97-500A. locality: 13km N Sarikamis, Kars Province. elevation: 1880m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532896 donor id: H83-1506-3. origin: Turkey. other id: HD1, 79TK97-503. locality: 13km N Sarikamis, Kars Province. elevation: 1880m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532897 donor id: H83-1512-1. origin: Turkey. other id: HD1, 79TK100-531A. locality: Arpacay, 10km S Dogruyol, Kars Province. elevation: 1900m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532898 donor id: H83-1516-3. origin: Turkey. other id: HD1, 79TK 103-544B. locality: 29km W Cildir, Kars Province. elevation: 1800m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532899 donor id: H83-1518-4. origin: Turkey. other id: HD1, 79TK104-548B. locality: 24km NW towards Gole, Kars Province. elevation: 1700m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532900 donor id: H83-1520-2. origin: Turkey. other id: HD1, 79TK104-522B. locality: 24km NW Kars towards Gole, Kars Province. elevation: 1700m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532901 donor id: H83-1521-2. origin: Turkey. other id: HD5, 79TK107-732. locality: 19km N Gole, Kars Province. elevation: 1880m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532902 donor id: H83-1523-3. origin: Turkey. other id: HD1, 79TK108-573A. locality: 40km N Gole, Kars Province. elevation: 1840m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532903 donor id: H83-1527-2. origin: Turkey. other id: HD1, 79TK108-572-3. locality: 40km N Gole, Kars Province. elevation: 1840m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.

PI 532895 to 532911-continued

- PI 532904 donor id: H83-1529-3. origin: Turkey. other id: HD6, 79TK112-1067. locality: 18km NE Erzurum, Erzurum Province. elevation: 1810m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532905 donor id: H83-1611-2. origin: Turkey. other id: 79TK100-531A. locality: Arpacay, 10km S Dogruyol, Kars Province. elevation: 1900m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532906 donor id: H83-1616-2. origin: Turkey. other id: HD2, 79TK99-522B. locality: 9km NW Arpacay, Kars Province. elevation: 1920m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532907 donor id: M82-3372. origin: Turkey. other id: HD2, 79TK98-510. locality: 12km SW Arpacay, Kars Province. elevation: 1590m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532908 donor id: M82-3457. origin: Turkey. other id: 79TK123-645. locality: 37km SE Bayburt, Gumushane Province. elevation: 1920m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532909 donor id: H83-1514-2. origin: Turkey. other id: 79TK101-540D. locality: 4km SE Cildir, Kars Province. elevation: 1900m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532910 donor id: H83-1530-3. origin: Turkey. other id: 79TK112-1067C. locality: 18km NE Erzurum, Erzurum Province. elevation: 1810m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.
- PI 532911 donor id: H83-1531-2. origin: Turkey. other id: HD2, 79TK112-1068. locality: 18km NE Erzurum, Erzurum Province. elevation: 1810m. received as: *T. aestivum* ssp. *carthlicoides*. Annual. Cultivated. Seed.

PI 532912 to 532914. *Triticum aestivum* L. POACEAE Common wheat

Donated by: Iwig, R.C., Dept. of Cereal Seed Breeding Inc., Pioneer Hi-Bred International, Inc., 1000 W Jefferson St., Tipton, Indiana, United States. Received May 09, 1989.

PI 532912 to 532914-continued

PI 532912 **origin:** United States. **cultivar:** Pioneer Variety 2180.
pedigree: TAM W-101/Pioneer W603/2/Pioneer W558,F6.
other id: PVP 8700202. **remarks:** Plants semidwarf, awned, hard red type. Similar to Pioneer Variety 2172 with improved grazing vigor and straw strength. Plants 95cm tall, yellow-green at boot stage with waxy bloom on stems. Seeds red. Weight 33 gms per 1000 kernals. Milling and bread making good. Susceptible to Hessian Fly race B. Moderately susceptible to predominant local races of stem and stripe rust and powdery mildew. **disease resistance:** Moderate to soil-born mosaic virus. Leaf rust (*Puccinia recondita*). **insect resistance:** Hessian Fly (*Mayetiola destructor*) races GP, A and C. Winter Annual. Cultivar. Seed.

PI 532913 **origin:** United States. **cultivar:** Pioneer Variety 2548.
pedigree: Hadden*2/4/Gall23/3/Norin 10/Brevor/2/Tenmarq/5/MOW6582/ Redcoat/6/Coker 68-15/4/Etoile de Choisy/2/Thorne/Clarkan/3/Pawnee/IN3848A5. **other id:** W0030. **other id:** XW571. **other id:** PVP 8900112. **source:** Pending. **group:** PVPO. **remarks:** Plants semidwarf, awned, soft red type. Winter hardiness good. Straw strength excellent. Boot stage color green to blue-green. Test weight good. Pheonol reaction ivory. Moderately susceptible to powdery mildew in Southeast, yet showing slow reaction. Susceptible to wheat soil-born mosaic virus, Hessian Fly races B and E, moderate to wheat spindle streak virus. Milling and baking qualities acceptable. **disease resistance:** Stem rust and leaf rust, good to various leaf blights. Powdery mildew (*erysiphe graminis*) Corn Belt region races. **drought tolerance:** Good. Winter Annual. Cultivar. Seed.

PI 532914 **origin:** United States. **cultivar:** Pioneer Variety 2555.
pedigree: Parentage includes: IN4946A4/Hadden, CI 13488/3/Kawvale, CI 8180/Vigo, CI 12220/2/Directour Journee, PI 193067/4/ Pioneer Line W521. **other id:** XW546. **other id:** W1060B. **other id:** PVP 8700011. **source:** Certificate in force. **group:** PVPO. **remarks:** Plants semidwarf, awned, soft red type. Lodging resistance good. Boot stage color green. Spikes mid-dense. Seeds red. Pheonol reaction black. Yield good. Susceptible to stem rust, powdery mildew, Hessian Fly biotypes A, B, C, D, and winter injury. Sensitive to drought stress. Soft wheat milling and baking properties excellent. Tolerance to leaf blight. **disease resistance:** High to soil borne mosaic virus & wheat streak mosaic virus. High, wheat spindle streak mosaic virus. Moderate leaf rust. **insect resistance:** Excellent to field races of Hessian Fly in Southeast. Winter Annual. Cultivar. Seed.

PI 532915. *Achillea millefolium* L. ASTERACEAE Milfoil

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-107. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-107. **locality:** Rocky slope, Deosai plateau between Skardu and Astore. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3719m. **remarks:** Possible ornamental. Wild. Seed.

PI 532916. *Agrostis gigantea* Roth POACEAE Redtop

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-24. **origin:** Pakistan. **collected:** August 28, 1986. **collector:** D.A. Johnson. **collector id:** J-24. **locality:** Hussaini, Hunza valley. **latitude:** 36 deg. N. **longitude:** 75 deg. E. **elevation:** 2499m. Wild. Seed.

PI 532917. *Aristida adscensionis* L. POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-47. **origin:** Pakistan. **collected:** August 30, 1986. **collector:** D.A. Johnson. **collector id:** J-47. **locality:** Pari, near Gilgit. **latitude:** 36 deg. N. **longitude:** 74 deg. E. **elevation:** 1463m. Wild. Seed.

PI 532918 to 532919. *Aquilegia* sp. RANUNCULACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532918 to 532919-continued

PI 532918 donor id: J-95. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-95. locality: Road to Deosai Plateau between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3353m. remarks: Possible ornamental. Wild. Seed.

PI 532919 donor id: J-106. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-106. locality: Road to Deosai Plateau between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3566m. remarks: Population large. Flowers blue, showy, possible ornamental. Wild. Seed.

PI 532920 to 532922. Astragalus sp. FABACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532920 donor id: J-97. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-97. locality: Road to Deosai Plateau between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3353m. Wild. Seed.

PI 532921 donor id: J-120. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-120. locality: Dry alpine ridge, Deosai Plateau, road between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3901m. Wild. Seed.

PI 532922 donor id: J-147. origin: Nepal. collected: September 12, 1986. collector: D.A. Johnson. collector id: J-147. locality: Mustang, 1 km W of Khinga. latitude: 28 deg. N. longitude: 84 deg. E. elevation: 3261m. remarks: Plants not very palatable. Strong reaction in animals if too much injected. Wild. Seed.

PI 532923. Bromus pectinatus Thunb. POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532923-continued

donor id: J-104. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-104. locality: Road to Deosai Plateau between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3505m. Wild. Seed.

PI 532924 to 532926. *Calamagrostis pseudophragmites* (Hall. F.) Koel.
POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-ARS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532924 donor id: J-16. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-16. locality: Shishket, Hunza Valley. latitude: 36 deg. N. longitude: 75 deg. E. elevation: 2377m. Wild. Seed.

PI 532925 donor id: J-18. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-18. locality: Shishket, Hunza Valley. latitude: 36 deg. N. longitude: 75 deg. E. elevation: 2377m. Wild. Seed.

PI 532926 donor id: J-20. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-20. locality: Shishket, Hunza Valley. latitude: 36 deg. N. longitude: 75 deg. E. elevation: 2377m. Wild. Seed.

PI 532927. *Chrysopogon gryllus* subsp. *echinulatus* (Nees) Cope POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-65. origin: Pakistan. collected: August 31, 1986. collector: D.A. Johnson. collector id: J-65. locality: Lake Kachura Bridge, above Shangrila Resort near Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2377m. Wild. Seed.

PI 532928. *Cicer microphyllum* Benth. FABACEAE

Donated by: Johnson, D.A., Forage and range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-108. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-108. **locality:** Rocky slope, road to Deosai Plateau. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3749m. **remarks:** Used for Yak forage and human consumption. Wild. Seed.

PI 532929. *Cucumis* sp. CUCURBITACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-90. **origin:** Pakistan. **local name:** Kharoza (melon). **collected:** September 2, 1986. **collector:** D.A. Johnson. **collector id:** J-90. **locality:** Skardu. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 2195m. **remarks:** Excellent taste. Similiar to cantaloupe but with green exterior. Cultivated. Seed.

PI 532930. *Deschampsia caespitosa* (L.) Beauv. POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-121. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-121. **locality:** Dry alpine ridge, Deosai Plateau between Skardu and Astore. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3901m. **remarks:** Plants small, tufted. Cultivated. Seed.

PI 532931. *Draba* sp. BRASSICACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-117. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-117. **locality:** Dry alpine ridge, Deosai Plateau between Skardu and Astore. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3901m. **remarks:** Plants clumped, forming dense mats. Possible ornamental. Wild. Seed.

PI 532932 to 532933. *Festuca valesiaca* Schleicher ex Gaudin POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532932 **donor id:** J-115. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-115. **locality:** Road to Deosai Plateau between Skardu and Astore. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3871m. **remarks:** Bunchgrass. Wild. Seed.

PI 532933 **donor id:** J-127. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-127. **locality:** Wet runoff water course, Deosai Plateau road between Skardu and Astore. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3993m. Wild. Seed.

PI 532934 to 532935. *Indigofera* sp. FABACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532934 **donor id:** J-57. **origin:** Pakistan. **collected:** August 31, 1986. **collector:** D.A. Johnson. **collector id:** J-57. **locality:** Main road to Skardu, Lake Kachura turnoff. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 2225m. Wild. Seed.

PI 532934 to 532935-continued

PI 532935 donor id: J-76. origin: Pakistan. collected: September 1, 1986. collector: D.A. Johnson. collector id: J-76. locality: Senkhore, 2km N of Shigar, near Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2256m. Wild. Seed.

PI 532936. *Iris ensata* Thunb. IRIDACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. Received October 31, 1988.

donor id: J-89. origin: Pakistan. collected: September 2, 1986. collector: D.A. Johnson. collector id: J-89. locality: Thorgu, near Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2225m. remarks: Leaves used for mats and given to goats after birthing. Seeds used for human consumption. Cultivated. Seed.

PI 532937 to 532938. *Koeleria macrantha* (Ledeb.) Schultes POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532937 donor id: J-110. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-110. locality: Dry rocky slope, road to Deosai Plateau between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3871m. Wild. Seed.

PI 532938 donor id: J-116. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-116. locality: Dry alpine ridge, Deosai Plateau, road between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3871m. remarks: Plants small, tufted. Bunchgrass. Wild. Seed.

PI 532939 to 532941. *Lotus corniculatus* L. FABACEAE Birdsfoot trefoil

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532939 to 532941-continued

PI 532939 donor id: J-58. origin: Pakistan. collected: August 31, 1986. collector: D.A. Johnson. collector id: J-58. locality: Lake Kachura turnoff, main road to Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2225m. Wild. Seed.

PI 532940 donor id: J-75. origin: Pakistan. collected: September 1, 1986. collector: D.A. Johnson. collector id: J-75. locality: Senkhore, 2km N of Shigar, near Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2256m. Wild. Seed.

PI 532941 donor id: J-154. origin: Nepal. collected: September 13, 1986. collector: D.A. Johnson. collector id: J-154. locality: Jarkot, Mustang, 7km E of Kagbeni. latitude: 28 deg. N. longitude: 84 deg. E. elevation: 3414m. Wild. Seed.

PI 532942. *Medicago lupulina* L. FABACEAE Black medic

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-160. origin: Nepal. local name: Kote. collected: October 25, 1987. collector: D.A. Johnson. collector id: J-160. locality: Chaira, Marpha (Agri farm), Mustang. latitude: 28 deg. N. longitude: 84 deg. E. remarks: Field-collected by M.B. Thapa. Wild. Seed.

PI 532943 to 532944. *Melilotus albus* Medikus FABACEAE White sweet clover

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532943 donor id: J-48. origin: Pakistan. collected: August 30, 1986. collector: D.A. Johnson. collector id: J-48. locality: Pari, near Gilgit. latitude: 36 deg. N. longitude: 74 deg. E. elevation: 1463m. Wild. Seed.

PI 532943 to 532944-continued

PI 532944 donor id: J-59. origin: Pakistan. collected: August 31, 1986. collector: D.A. Johnson. collector id: J-59. locality: Lake Kachura turnoff, main road to Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2225m. Wild. Seed.

PI 532945 to 532954. *Melilotus officinalis* Lam. FABACEAE Yellow sweet clover

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532945 donor id: J-9. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-9. locality: Karimabad, Hunza Valley. latitude: 36 deg. N. longitude: 75 deg. E. elevation: 2134m. Wild. Seed.

PI 532946 donor id: J-27. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-27. locality: Passu, Hunza Valley. latitude: 36 deg. N. longitude: 75 deg. E. elevation: 2469m. Wild. Seed.

PI 532947 donor id: J-30. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-30. locality: Ganish, Hunza Valley. latitude: 36 deg. N. longitude: 75 deg. E. elevation: 2164m. remarks: Mixture of *M. officinalis* and *M. alba*. Wild. Seed.

PI 532948 donor id: J-45. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-45. locality: Mid Naltar Valley, near Gilgit. latitude: 36 deg. N. longitude: 74 deg. E. elevation: 2377m. Wild. Seed.

PI 532949 donor id: J-52. origin: Pakistan. collected: August 31, 1986. collector: D.A. Johnson. collector id: J-52. locality: Forest headquarters garden at Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2195m. Wild. Seed.

PI 532950 donor id: J-69. origin: Pakistan. collected: August 31, 1986. collector: D.A. Johnson. collector id: J-69. locality: Kachura Power Station, near Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2408m. Wild. Seed.

PI 532945 to 532954-continued

- PI 532951 donor id: J-73. origin: Pakistan. collected: September 1, 1986. collector: D.A. Johnson. collector id: J-73. locality: Ispecho, above Hussainabad, 5km E of Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2256m. Wild. Seed.
- PI 532952 donor id: J-85. origin: Pakistan. collected: September 2, 1986. collector: D.A. Johnson. collector id: J-85. locality: Sadpara Lake Rest House, 5km S of Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2530m. Wild. Seed.
- PI 532953 donor id: J-136. origin: Nepal. collected: September 11, 1986. collector: D.A. Johnson. collector id: J-136. locality: Along field margins and irrigated canals, Jomsom (site #1), Mustang, 1 km NE of Jomsom Airport. latitude: 28 deg. N. longitude: 84 deg. E. elevation: 2682m. Wild. Seed.
- PI 532954 donor id: J-144. origin: Nepal. collected: September 12, 1986. collector: D.A. Johnson. collector id: J-144. locality: Mustang, 1 km S of Kagbeni. latitude: 28 deg. N. longitude: 84 deg. E. elevation: 2774m. Wild. Seed.

PI 532955. *Oryzopsis* sp. POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-158. origin: Nepal. collected: September 13, 1986. collector: D.A. Johnson. collector id: J-158. locality: Jarkot, 7km E of Kagbeni. latitude: 28 deg. N. longitude: 84 deg. E. elevation: 3414m. Wild. Seed.

PI 532956. *Oxyria digyna* (L.) Hill POLYGONACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532956-continued

donor id: J-99. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-99. locality: Road to Deosai Plateau between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3353m. Wild. Seed.

PI 532957. *Panicum* sp. POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-142. origin: Nepal. collected: September 11, 1986. collector: D.A. Johnson. collector id: J-142. locality: Along field margins and irrigation canals, Jomsom, Mustang. latitude: 28 deg. N. longitude: 84 deg. E. elevation: 2682m. remarks: Rhizomatous, widespread. Valuable forage. Propagated by roots. Harvested mid-late October. received as: *Setaria* sp.. Wild. Seed.

PI 532958 to 532960. *Pennisetum orientale* L. C. Rich. POACEAE Millet

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532958 donor id: J-11. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-11. locality: Karimabad, Hunza Valley. latitude: 36 deg. N. longitude: 75 deg. E. elevation: 2134m. Wild. Seed.

PI 532959 donor id: J-23. origin: Pakistan. collected: August 28, 1986. collector: D.A. Johnson. collector id: J-23. locality: Hussaini, Hunza Valley. latitude: 36 deg. N. longitude: 75 deg. E. elevation: 2499m. Wild. Seed.

PI 532960 donor id: J-35. origin: Pakistan. collected: August 29, 1986. collector: D.A. Johnson. collector id: J-35. locality: Lower Naltar Valley, near Gilgit. latitude: 36 deg. N. longitude: 74 deg. E. elevation: 1920m. Wild. Seed.

PI 532961. *Phragmites karka* (Retz.) Trin. POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-54. **origin:** Pakistan. **collected:** August 31, 1986. **collector:** D.A. Johnson. **collector id:** J-54. **locality:** Forestry plantation, Hoto Farm, near Skardu Airport. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 2225m. Wild. Seed.

PI 532962 to 532963. *Rumex* sp. POLYGONACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532962 **donor id:** J-100. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-100. **locality:** Road to Deosai Plateau between Skardu and Astore. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3353m. **remarks:** Possible ornamental. Flower stalks 20-23cm tall. Inflorescence elongated, snowball-shaped, showy. Flowers white. **received as:** *Polygonum* sp.. Wild. Seed.

PI 532963 **donor id:** J-119. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-119. **locality:** Dry alpine ridge, Deosai Plateau between Skardu and Astore. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3901m. **remarks:** Rhizomatous, forming dense-matted patches. Possible ornamental. **received as:** *Polygonum* sp.. Wild. Seed.

PI 532964 to 532965. *Potentilla* sp. ROSACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532964 to 532965-continued

PI 532964 donor id: J-123. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-123. locality: Wet runoff area, Deosai Plateau between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3993m. remarks: Possible ornamental. received as: Sedum spp.. Wild. Seed.

PI 532965 donor id: J-124. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-124. locality: Water runoff course, Deosai Plateau, road between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3993m. remarks: Possible ornamental. received as: Potentilla spp.. Wild. Seed.

PI 532966. *Rostraria cristata* (L.) Tzvelev POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-122. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-122. locality: Wet runoff area, Deosai Plateau, road between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3993m. Wild. Seed.

PI 532967. *Scrophularia* sp. SCROPHULARIACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-93. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-93. locality: Road from Skardu to Deosai Plateau. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3353m. remarks: Possible ornamental. Wild. Seed.

PI 532968. *Silene* sp. CARYOPHYLLACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-126. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-126. **locality:** Road between Skardu and Astore, Deosai Plateau. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3993m. **remarks:** Possible ornamental. Wild. Seed.

PI 532969. *Stipa* sp. POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-118. **origin:** Pakistan. **collected:** September 4, 1986. **collector:** D.A. Johnson. **collector id:** J-118. **locality:** Dry alpine ridge, Deosai Plateau between Skardu and Astore. **latitude:** 35 deg. N. **longitude:** 76 deg. E. **elevation:** 3901m. **received as:** *Geum* spp. Wild. Seed.

PI 532970 to 532972. *Trifolium pratense* L. FABACEAE Red clover

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **remarks:** Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

PI 532970 **donor id:** J-36. **origin:** Pakistan. **collected:** August 29, 1986. **collector:** D.A. Johnson. **collector id:** J-36. **locality:** Lower Naltar Valley near Gilgit. **latitude:** 36 deg. N. **longitude:** 74 deg. E. **elevation:** 1920m. Wild. Seed.

PI 532971 **donor id:** J-42. **origin:** Pakistan. **collected:** August 29, 1986. **collector:** D.A. Johnson. **collector id:** J-42. **locality:** Mid Naltar Valley near Gilgit. **latitude:** 36 deg. N. **longitude:** 74 deg. E. **elevation:** 2377m. Wild. Seed.

PI 532970 to 532972-continued

PI 532972 donor id: J-60. origin: Pakistan. collected: August 31, 1986. collector: D.A. Johnson. collector id: J-60. locality: Kachura Lake turnoff, main road to Skardu. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 2225m. Wild. Seed.

PI 532973. *Trisetum aeneum* (Hook. f.) R. Stewart POACEAE

Donated by: Johnson, D.A., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. remarks: Received through a USDA-CSRS special grants project for nitrogen fixation research in developing countries. Received October 31, 1988.

donor id: J-111. origin: Pakistan. collected: September 4, 1986. collector: D.A. Johnson. collector id: J-111. locality: Road to Deosai Plateau between Skardu and Astore. latitude: 35 deg. N. longitude: 76 deg. E. elevation: 3871m. Wild. Seed.

PI 532974 to 532993. *Capsicum annum* L. SOLANACEAE Pepper

Donated by: Inst. for Plant Prod. & Qualification, Research Centre for Agrobotany, H-2766 Taposzele, Hungary. Received May 25, 1989.

PI 532974 donor id: 221. origin: Hungary. cultivar: ALBAREGIA. other id: 3315-86. Annual. Cultivar. Seed.

PI 532975 donor id: 236. origin: Hungary. cultivar: BUDAI EDES GH. other id: VII-9-676. Annual. Cultivar. Seed.

PI 532976 donor id: 261. origin: Hungary. cultivar: FEHEROZON. other id: 3318-86. Annual. Cultivar. Seed.

PI 532977 donor id: 262. origin: Hungary. cultivar: FEHEROZON SUPER. other id: 3791-87. Annual. Cultivar. Seed.

PI 532978 donor id: 268. origin: Hungary. cultivar: GEPI KONZERV. other id: VII-9-483. Annual. Cultivar. Seed.

PI 532979 donor id: 269. origin: Hungary. cultivar: GOGASAN. other id: VII-9-666. Annual. Cultivar. Seed.

PI 532980 donor id: 270. origin: Hungary. cultivar: GOLIAT. other id: VII-9-833. Annual. Cultivar. Seed.

PI 532981 donor id: 273. origin: Hungary. cultivar: HATVANI. other id: VII-9-436. Annual. Cultivar. Seed.

PI 532974 to 532993-continued

- PI 532982 donor id: 274. origin: Hungary. cultivar: HAROZI ZOLD.
other id: 525-86. Annual. Cultivar. Seed.
- PI 532983 donor id: 293. origin: Hungary. cultivar: KESZTHELYI
FEHER. other id: 3316-86. Annual. Cultivar. Seed.
- PI 532984 donor id: 298. origin: Hungary. cultivar: KOC SOLAI.
other id: 3322-86. Annual. Cultivar. Seed.
- PI 532985 donor id: 299. origin: Hungary. cultivar: KOC SOLAI
SZARITANIVALO. other id: VII-9-387. Annual. Cultivar.
Seed.
- PI 532986 donor id: 300. origin: Hungary. cultivar:
KOLOZSVARIENSIS. other id: VII-9-476. Annual.
Cultivar. Seed.
- PI 532987 donor id: 301. origin: Hungary. cultivar: KARAI
PARADICSOMALAKU. other id: VII-9-678. Annual.
Cultivar. Seed.
- PI 532988 donor id: 324. origin: Hungary. cultivar:
PARADICSOMALAKU ZOLD PALLAGI. other id: VII-9-443.
Annual. Cultivar. Seed.
- PI 532989 donor id: 325. origin: Hungary. cultivar:
PARADICSOMALAKU ZOLD SZENTESI. other id: VII-9-425.
Annual. Cultivar. Seed.
- PI 532990 donor id: 340. origin: Hungary. cultivar: SOROKSARI.
other id: VII-9-483. Annual. Cultivar. Seed.
- PI 532991 donor id: 353. origin: Hungary. cultivar: SZENTESI
FEHER. other id: 2518-85. Annual. Cultivar. Seed.
- PI 532992 donor id: 355. origin: Hungary. cultivar: SZENTESI
PIACOS. other id: VII-9-683. Annual. Cultivar. Seed.
- PI 532993 donor id: 356. origin: Hungary. cultivar: SZENTESI
SARGA PARADICSOMPAPRIKA. other id: 3798-87. Annual.
Cultivar. Seed.

PI 532994. *Triticum aestivum* L. POACEAE Common wheat

Donated by: Donaldson, E., Dry Land Research Unit, Univ. of
Washington, P.O. Box B, Lind, Washington, United States. remarks:
Released by Washington State University. Received May 22, 1989.

PI 532994-continued

donor id: WA007523. **origin:** United States. **cultivar:** BUCHANAN. **pedigree:** Selection from a field cross. **remarks:** Hard red type. Plants highly tillering, 2.5cm taller and anthesis one day later than Hatton. Spikes medium. Awns and glumes white. Emergence and stand establishment excellent under stree conditions. Yield good with <25cm of annual rainfall. Susceptible to strawbreaker, dry land foot rots, and dwarf bunt. Moderately susceptible to stripe and leaf rusts and common bunt. **disease resistance:** Moderate to snowmold but weak strawed. Spring Annual. Cultivar. Seed.

PI 532995 to 533000. *Hibiscus cannabinus* L. MALVACEAE Kenaf

Donated by: Ronco Consulting Corp., Suite 300, 1629 K St., N.W., Washington, D.C., United States. **remarks:** Collected by W.C. Adamson, 811 McIntosh Trail, Sharpsburg, Georgia. Received May 11, 1989.

- PI 532995 **origin:** Uganda. **collected:** April 12, 1989. **locality:** Savanna, Kabale-Mbarara Road near Lyantode. **remarks:** Rainfall approximately 750mm. Plants upright, 2.1m tall. Flowers cream colored. Wild. Seed.
- PI 532996 **origin:** Uganda. **collected:** April 04, 1989. **locality:** Field, near Tororo Bag Mill. Wild. Seed.
- PI 532997 **origin:** Uganda. **collected:** April 04, 1989. **locality:** Tororo Bag Mill. **remarks:** Harvested at Namalu. Wild. Seed.
- PI 532998 **origin:** Uganda. **collected:** April 10, 1989. **locality:** Roadside near Ibuga Prison farm, Kasese. **remarks:** Escaped from cultivation. Mixed population. Cultivated. Seed.
- PI 532999 **origin:** Uganda. **collected:** April 10, 1989. **locality:** Roadside near Ibuga Prison farm, Kasese. **remarks:** Escaped from cultivation. Mixed population. Cultivated. Seed.
- PI 533000 **origin:** Uganda. **collected:** April 10, 1989. **locality:** Roadside near Ibuga Prison farm, Kasese. **remarks:** Escaped from cultivation. Mixed population. Cultivated. Seed.

PI 533001 to 533008. Hibiscus sp. MALVACEAE

Donated by: Ronco Consulting Corp., Suite 300, 1629 K St., N.W., Washington, D.C., United States. **remarks:** Collected by W.C. Adamson, 811 McIntosh Trail, Sharpsburg, Georgia. Received May 11, 1989.

PI 533001 **origin:** Uganda. **collected:** April 11, 1989. **locality:** Near Kabale. **elevation:** 1829m. Wild. Seed.

PI 533002 **origin:** Uganda. **collected:** April 11, 1989. **locality:** Near Kabale. Wild. Seed.

PI 533003 **origin:** Uganda. **collected:** April 11, 1989. **locality:** Near Kabale. Wild. Seed.

PI 533004 **origin:** Uganda. **collected:** April 11, 1989. **locality:** Near Kabale. Wild. Seed.

PI 533005 **origin:** Uganda. **collected:** April 11, 1989. **locality:** Near Kabale. **remarks:** Flowers purple. Used locally for fiber. Wild. Seed.

PI 533006 **origin:** Uganda. **collected:** April 11, 1989. **locality:** Near Kabale. Wild. Seed.

PI 533007 **origin:** Uganda. **collected:** April 04, 1989. **locality:** Near Tororo Bag Mill. Wild. Seed.

PI 533008 **origin:** Uganda. **collected:** April 09, 1989. **locality:** Kampala, Fort Portal Road between Kababara and Matiris. Wild. Seed.

PI 533009 to 533011. Vigna unguiculata (L.) Walp. subsp. unguiculata
FABACEAE Cowpea

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, Box 70, Mayaguez,, Puerto Rico. **remarks:** Released jointly by USDA-ARS, and University of Puerto Rico, Mayaguez supported in part by AID. Received June 22, 1989.

PI 533009 **donor id:** TARS-36. **origin:** Puerto Rico. **pedigree:** 10-R3/70F-51. **remarks:** Maturity 115-120 days. Daylength sensitive. Plants short, erect with medium long lateral vines. Stems basal, stout. Roots strong. Seeds large, red, 20.6 g/100. Crowder type. Pods large with 21 seeds per pod. Seeds with reddish tinge at green shell stage which facilitates recognition. Green shell average yield 7552 kg/ha. Dry grain average 2264 kg/ha. **disease resistance:** Powdery mildew, cowpea mosaic, cercospora leafspot. Root rots. **insect resistance:** Cowpea curculio and weevil (Callosobruchus sp.). Annual. Breeding Material. Seed.

PI 533009 to 533011-continued

PI 533010 **donor id:** TARS-62. **origin:** Puerto Rico. **pedigree:** PR-V-70-4-R173/70F-51. **remarks:** Maturity 115-120 days. Daylength sensitive. Blackeye seed type. Plants short, erect with medium long lateral vines. Stems basal, stout. Roots strong. Seeds 20 per pod, 17.5g per 100. Green shell average yield 4314 kg/ha. Dry grain average 1460 kg/ha. **disease resistance:** Powdery mildew, cowpea mosaic, cercospora leafspot. Root rots. **insect resistance:** Cowpea curculio. Annual. Breeding Material. Seed.

PI 533011 **donor id:** TARS-48. **origin:** Puerto Rico. **pedigree:** PR-V-70-4-R373/70F-51. **remarks:** Maturity 115-120 days. Daylength sensitive. Cream southern pea type. Plants short, erect with medium long lateral vines. Stems basal, stout. Roots strong. Seeds 20 per pod, 14.5g per 100. Green shell average 2781 kg/ha. Dry grain average 528 kg/ha. **disease resistance:** Powdery mildew, cowpea mosaic, cercospora leafspot. Root rots. **insect resistance:** Cowpea curculio. Annual. Breeding Material. Seed.

PI 533012. *Australopyrum pectinatum* (Labill.) A. Love POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

donor id: 86174. **origin:** Australia. **collected:** February 07, 1986. **collector:** C.F. Crane. **collector id:** 86174. **locality:** Gravel road, nearly full sun or shade, 6.1km up Mt. Barrow road from Tasman Highway. **remarks:** Lower spikelets pointed downwards. Glumes sharp. Wild. Seed.

PI 533013 to 533014. *Australopyrum retrofractum* (Vick.) A. Love POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

PI 533013 **donor id:** 86146. **origin:** Australia. **collected:** February 01, 1986. **collector:** C.F. Crane. **collector id:** 86146. **locality:** Black cracking clay, 15.8km W of intersection of Highway 23 on gravel road to Dalgety. **remarks:** Flowers fertile. Glumes pungent. Wild. Seed.

PI 533013 to 533014-continued

PI 533014 **donor id:** 86147. **origin:** Australia. **collected:** February 01, 1986. **collector:** C.F. Crane. **collector id:** 86147. **locality:** Black cracking clay, lowland, Spring Paddock, Old Springfield Station, 20.1km W of intersection Highway 23 on road to Dalgety, near junction with dirt road to Cooma via Myalla. **remarks:** Plants spiny, unpalatable, large colony. Flowers fertile. Stems coarse. Glumes pungent. Susceptible to stem rust. Wild. Seed.

PI 533015. *Brachypodium* sp. POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

donor id: 1094. **origin:** Australia. **collected:** December 07, 1985. **collector:** J.G. Carman. **collector id:** 1094. **locality:** 3km upstream from town, Crystal Brook. **remarks:** Plants short, 2-3 spikelets per spike. Annual. Wild. Seed.

PI 533016 to 533022. *Elymus austromontanus* Ined. POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

PI 533016 **donor id:** 86124. **origin:** Australia. **collected:** January 28, 1986. **collector:** C.F. Crane. **collector id:** 86124. **locality:** Mt. Buller, steep road cut in deeply weathered diorite, 32.9km E of Mansfield Post Office. **remarks:** Awns intermediate to long. Six seeds/spikelet. Anthers purple on some plants, yellow on others. Seed mature. Wild. Seed.

PI 533017 **donor id:** 86126. **origin:** Australia. **collected:** January 28, 1986. **collector:** C.F. Crane. **collector id:** 86126. **locality:** Brown loam mixed with slate, "bluestone" and siltstone, gravel road to Licola, 22.5km SE of Jamieson. Wild. Seed.

PI 533018 **donor id:** 86137. **origin:** Australia. **collected:** January 31, 1986. **collector:** C.F. Crane. **collector id:** 86137. **locality:** Side road, 7.2km from road to Gudgenby (Naas Rd.), up to Honeysuckle Creek Tracking Station. **remarks:** Stems glaucous. Six seeds/spikelet, some sterile. Awns intermediate. Seeds purple. Wild. Seed.

PI 533016 to 533022-continued

- PI 533019 **donor id:** 86138. **origin:** Australia. **collected:** January 31, 1986. **collector:** C.F. Crane. **collector id:** 86138. **locality:** On gravel fill made of trap rock, 8.6km from Naas Rd., side road to Honeysuckle Creek Tracking Station. **remarks:** Plants variable in stature. Up to 6 seeds/spikelet. Awns variable short to intermediate. Wild. Seed.
- PI 533020 **donor id:** 86173. **origin:** Australia. **collected:** February 07, 1986. **collector:** C.F. Crane. **collector id:** 86173. **locality:** Yellow brown soil without evident bedrock, 4.0km W of Mt. Barrow turnoff on hwy 3 (Tasman Hwy), 18km NE of Launceston. **remarks:** Two forms, colony varies for fertility, seed color, glaucescence, and sheath and blade pubescence. Awns intermediate. Up to 6 seeds/spikelet. Wild. Seed.
- PI 533021 **donor id:** 86603. **origin:** Australia. **collected:** February 21, 1986. **collector:** C.F. Crane. **collector id:** 86603. **locality:** Among trees on hillside, 3.5km N of Cabramurra turnoff, off Snowy Mountain Highway. **remarks:** Awns straight, long, purple. Seeds plump, two per spikelet, immature. Originally collected by Dr. S. Ryan, CSIRO, Canberra. Wild. Seed.
- PI 533022 **donor id:** 86608. **origin:** Australia. **collected:** February 27, 1986. **collector:** C.F. Crane. **collector id:** 86608. **locality:** Mt. Flanklin road, 21.5km S from gate at Piccadilly Circus, Western boundry of the ACT. **remarks:** Awns long, straight and dark. Fertility variable. Seeds purple, two-three per spikelet. Originally collected by Dr. S. Ryan, CSIRO, Canberra. Wild. Seed.

PI 533023. *Elymus hybrid* POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

donor id: 86139. **origin:** Australia. **collected:** January 31, 1986. **collector:** C.F. Crane. **collector id:** 86139. **locality:** Weathered felsite or diorite, Namagi National Park, northeast corner Boboyan pine plantation. **remarks:** Hybrid swarm (*E. rectisetus* and *E. austromontanus*). Seeds 0 per spike to 6 per spikelet. Awn lengths and fertilities variable. Wild. Seed.

PI 533024. *Elymus multiflorus* (Banks & Sol. ex Hook. f.) A. Love & Connor POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

donor id: 86225. **origin:** New Zealand. **collected:** February 18, 1986. **collector:** C.F. Crane. **collector id:** 86225. **locality:** Slope on fossiliferous limestone, SW of lighthouse at Castlepoint, 10m above high tide. **remarks:** Fertility low to moderate as if not completely autogamous. Awns short. Wild. Seed.

PI 533025 to 533182. *Elymus rectisetus* (Nees) A. Love & Connor POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

PI 533025 **donor id:** 1018. **origin:** Australia. **collected:** November 24, 1985. **collector:** J.G. Carman. **collector id:** 1018. **locality:** Field, in town on Brisbane Street, Drayton. **remarks:** Plants with intermediate awn length. Short-awned mature earlier than intermediate awned ones. Wild. Seed.

PI 533026 **donor id:** 1023. **origin:** Australia. **collected:** November 25, 1985. **collector:** J.G. Carman. **collector id:** 1023. **locality:** Sandy soil, highway leading to Cotton Vale, 23.6km S of Warwick. **remarks:** Plants tall, 100-150cm. Awns intermediate. Glumes short. Wild. Seed.

PI 533027 **donor id:** 1047. **origin:** Australia. **collected:** November 30, 1985. **collector:** J.G. Carman. **collector id:** 1047. **locality:** W side of New England Highway, 62km N of Glen Innes. **remarks:** Plants tall 75-150cm. Awns long. Wild. Seed.

PI 533028 **donor id:** 1050. **origin:** Australia. **collected:** November 30, 1985. **collector:** J.G. Carman. **collector id:** 1050. **locality:** E side of road between Wellingrove and Emmaville, 45km NW of Glen Innes. **remarks:** Spikes long. Awns intermediate. Reproduction apomictic. Wild. Seed.

PI 533029 **donor id:** 1053. **origin:** Australia. **collected:** December 1, 1985. **collector:** J.G. Carman. **collector id:** 1053. **locality:** Agricultural Research and Advisory Station, Glen Innes. **remarks:** Typical. Originally collected by Guy Robinson. Seed taken from greenhouse-grown material. Wild. Seed.

PI 533025 to 533182-continued

- PI 533030 donor id: 1055. origin: Australia. collected: December 1, 1985. collector: J.G. Carman. collector id: 1055. locality: Shannon Vale, approximately 10km E of Glen Innes. remarks: Typical. Awn length intermediate. Originally collected by Guy Robinson. Seed taken from greenhouse-grown material. Wild. Seed.
- PI 533031 donor id: 1062. origin: Australia. collected: December 2, 1985. collector: J.G. Carman. collector id: 1062. locality: Along banks of Brown's Creek, 30.6km NE of Narrabri on road leading to Caroda. remarks: Awns short. Leaf sheath and blade pubescent. Wild. Seed.
- PI 533032 donor id: 1065. origin: Australia. collected: December 2, 1985. collector: J.G. Carman. collector id: 1065. locality: N side of dirt road, between Narrabri and Caroda, 43.8km NE of Narrabri. remarks: Maturity early. Awns long. Glumes small. Wild. Seed.
- PI 533033 donor id: 1066. origin: Australia. collected: December 2, 1985. collector: J.G. Carman. collector id: 1066. locality: N side dirt road, between Narrabri and Caroda, 43.8km NE of Narrabri. remarks: Typical. Awns intermediate. Wild. Seed.
- PI 533034 donor id: 1067. origin: Australia. collected: December 2, 1985. collector: J.G. Carman. collector id: 1067. locality: S side of road to Rocky Creek, 40.8km N of Barraba. remarks: Awns long. Wild. Seed.
- PI 533035 donor id: 1068. origin: Australia. collected: December 2, 1985. collector: J.G. Carman. collector id: 1068. locality: Near summit of mountain pass several km SE of Upper Horton, N side of dirt road between Barraba and Rocky Creek, 34.5km N of Barraba. remarks: Awns short to intermediate length. Wild. Seed.
- PI 533036 donor id: 1069. origin: Australia. collected: December 2, 1985. collector: J.G. Carman. collector id: 1069. locality: Stream banks and beds, soil sandy, W side of hwy, just 8km S of Greenhatches Creek, 10km S of Manilla. remarks: Typical. Wild. Seed.
- PI 533037 donor id: 1071. origin: Australia. collected: December 3, 1985. collector: J.G. Carman. collector id: 1071. locality: Fireplace turnout, sandy soil, 13km W of Tamworth on S side of Oxley Highway. remarks: Awns long, straight. Glumes small. Wild. Seed.

PI 533025 to 533182-continued

- PI 533038 donor id: 1072. origin: Australia. collected: December 3, 1985. collector: J.G. Carman. collector id: 1072. locality: S side of Oxley highway, 26km E of Gunnedah. remarks: Awns long. Wild. Seed.
- PI 533039 donor id: 1073. origin: Australia. collected: December 3, 1985. collector: J.G. Carman. collector id: 1073. locality: Soil sandy, hilly area, S side of Oxley highway, 52.5km W of Gunnedah. remarks: Awns long. Wild. Seed.
- PI 533040 donor id: 1075. origin: Australia. collected: December 3, 1985. collector: J.G. Carman. collector id: 1075. locality: Soil sandy, N side of Oxley highway, 25.5km E of Gilgandra. remarks: Awns bent at maturity like plurinerve. Glumes small. Seeds retained longer than plurinerve. Wild. Seed.
- PI 533041 donor id: 1076. origin: Australia. collected: December 3, 1985. collector: J.G. Carman. collector id: 1076. locality: Soil sandy, S side of Oxley highway, 3km W of Gilgandra. remarks: Awns bent at maturity like plurinerve. Glumes small. Seeds retained longer than plurinerve. Possible hybrid between plurinerve and a long-awned form adopted to sandy soils. Wild. Seed.
- PI 533042 donor id: 1077. origin: Australia. collected: December 3, 1985. collector: J.G. Carman. collector id: 1077. locality: Soil sandy clay loam, N side of Oxley highway, 77km W of Warren. remarks: Awns bent at maturity like plurinerve. Glumes small. Seeds retained longer than plurinerve. Wild. Seed.
- PI 533043 donor id: 1078. origin: Australia. collected: December 3, 1985. collector: J.G. Carman. collector id: 1078. locality: Soil sandy, E side of Mitchell Highway, 5km SE of Nyngan. remarks: Typical. Wild. Seed.
- PI 533044 donor id: 1079. origin: Australia. collected: December 4, 1985. collector: J.G. Carman. collector id: 1079. locality: W side of Mitchell Highway, 3.5km S of Girilambone. remarks: Typical. Awns long. Wild. Seed.
- PI 533045 donor id: 1080. origin: Australia. collected: December 4, 1985. collector: J.G. Carman. collector id: 1080. locality: S side of Barrier Highway, 5.9km W of Hermidale. remarks: Typical. Wild. Seed.

PI 533025 to 533182-continued

- PI 533046 donor id: 1081. origin: Australia. collected: December 4, 1985. collector: J.G. Carman. collector id: 1081. locality: S side of Barrier highway, 0.7km E of Cobar. remarks: Awns long. Distinctive type not represented in the Crane series. Wild. Seed.
- PI 533047 donor id: 1082. origin: Australia. collected: December 4, 1985. collector: J.G. Carman. collector id: 1082. locality: Soil red sandy loam, N side of Tundulya road, 8.9km W of Cobar-Louth road. remarks: Awns intermediate to long. Sparse, only 2 plants. Wild. Seed.
- PI 533048 donor id: 1083. origin: Australia. collected: December 4, 1985. collector: J.G. Carman. collector id: 1083. locality: S side of Barrier Highway, 69km W of Cobar. remarks: Typical. Awns long. Wild. Seed.
- PI 533049 donor id: 1085. origin: Australia. collected: December 6, 1985. collector: J.G. Carman. collector id: 1085. locality: North facing, sunny slope, adjacent to Wilpena Pound trailhead parking lot, Flinders Range National Park. remarks: Typical. Wild. Seed.
- PI 533050 donor id: 1091. origin: Australia. collected: December 6, 1985. collector: J.G. Carman. collector id: 1091. locality: Along stream banks, 11.5km SW of Quorn on E side of highway leading to Port Augusta. remarks: Typical. Awns long. Wild. Seed.
- PI 533051 donor id: 1093. origin: Australia. collected: December 7, 1985. collector: J.G. Carman. collector id: 1093. locality: In river bottom, near N slope about 0.5km E of Mt. Remarkable Conservation Park Trailhead, 6.2km E of highway 1 between Port Pirie and Port Augusta. remarks: Typical. Awns long. Wild. Seed.
- PI 533052 donor id: 1095. origin: Australia. collected: December 7, 1985. collector: J.G. Carman. collector id: 1095. locality: Soil red sandy loam, in sheep and cattle pastures, 4km ESE of Hallett. remarks: Awns long. Sparsely distributed. Wild. Seed.
- PI 533053 donor id: 1096. origin: Australia. collected: December 7, 1985. collector: J.G. Carman. collector id: 1096. locality: N side of road just past turnoff to Tothill Creek, 10.5km SE of Saddleworth. remarks: Typical. Awns long. Wild. Seed.

PI 533025 to 533182-continued

- PI 533054 donor id: 1097. origin: Australia. collected: December 7, 1985. collector: J.G. Carman. collector id: 1097. locality: Red sandy loam, 5.5km N of Greenock, on E side of highway from Kapunda to Greenock. remarks: Typical. Wild. Seed.
- PI 533055 donor id: 1098. origin: Australia. collected: December 7, 1985. collector: J.G. Carman. collector id: 1098. locality: S side of Sturt Highway, 3km NE of Nuriootpa. remarks: Typical. Wild. Seed.
- PI 533056 donor id: 1099. origin: Australia. collected: December 8, 1985. collector: J.G. Carman. collector id: 1099. locality: S side of highway leading to Nairne, 4.6km NW of Callington. remarks: Typical. Wild. Seed.
- PI 533057 donor id: 1105. origin: Australia. collector: J.G. Carman. collector id: 1105. locality: Heyser St., Weston. remarks: Low fertility about one seed/spikelet. Originally collected by L. Watson, Research School of Biological Sciences, Australian National University. Wild. Seed.
- PI 533058 donor id: 86001. origin: Australia. collected: January 4, 1986. collector: C.F. Crane. collector id: 86001. locality: Grassy understory, brown clay, Eucalyptus woodland, NSW highway 56, near intersection with eastern boundary of Ingleburn Military Camp, about 1 km W of Highway 56 intersection with Southwestern Freeway, Sidney District. remarks: Awns long to 35mm. Wild. Seed.
- PI 533059 donor id: 86002. origin: Australia. collected: January 4, 1986. collector: C.F. Crane. collector id: 86002. locality: Old field, clay over shale, with thin layers of red brown sandstone, Ingleburn Industrial Estate near intersection of Brooks Road and Southwestern Freeway, Sydney District. remarks: Culms to 2m long. Awns intermediate. Wild. Seed.
- PI 533060 donor id: 86003. origin: Australia. collected: January 4, 1986. collector: C.F. Crane. collector id: 86003. locality: Under Eucalyptus, red clay loam, 1 km W of Denham Court, 200m from T intersection with Highway 89 on Denham Court Road, Sydney District. remarks: Awns long to 35mm. Wild. Seed.
- PI 533061 donor id: 86004. origin: Australia. collected: January 5, 1986. collector: C.F. Crane. collector id: 86004. locality: Old pasture side of fencerow with a few trees, 6km W of Liverpool, S side of Fairfield. remarks: Flowers rather sterile. Awns to 50mm. Wild. Seed.

PI 533025 to 533182-continued

- PI 533062 donor id: 86005. origin: Australia. collected: January 5, 1986. collector: C.F. Crane. collector id: 86005. locality: Original land surface, above road cut on small hilltop, 2km E of Wallacia, opposite small airport. remarks: Awns to 45-50mm long. Wild. Seed.
- PI 533063 donor id: 86007. origin: Australia. collected: January 5, 1986. collector: C.F. Crane. collector id: 86007. locality: Top of road on original surface, eucalypt overstory, 11km E of Lithgow near hwy 32. remarks: Both sterile and fertile shoots present. Fertile shoots later and less mature. Wild. Seed.
- PI 533064 donor id: 86009. origin: Australia. collected: January 5, 1986. collector: C.F. Crane. collector id: 86009. locality: Forested south facing slope above road cut near intersection of Highway 32 and road to Oberon, 5km E of Lithgow. remarks: Many plants with unripe seed. Wild. Seed.
- PI 533065 donor id: 86010. origin: Australia. collected: January 5, 1986. collector: C.F. Crane. collector id: 86010. locality: Open roadside along Highway 32, 26km W of intersection of Highways 32 and 40 in Lithgow. remarks: Awns intermediate to long, max. about 45mm. Wild. Seed.
- PI 533066 donor id: 86012. origin: Australia. collected: January 5, 1986. collector: C.F. Crane. collector id: 86012. locality: Roadside ditch in wheat area beginning about 3km farther E, 12km E of Bathurst. remarks: Plants <1 m tall. Awns intermediate. Wild. Seed.
- PI 533067 donor id: 86013. origin: Australia. collected: January 6, 1986. collector: C.F. Crane. collector id: 86013. locality: Roadside, grey-brown loam on decomposed granite, along Highway 32 at intersection with Boundary Road in Bathurst. remarks: Plants more or less depauperate, 60-80cm tall in small clumps. Awns intermediate. Spikes vary in fertility. 0-15% seed set. Wild. Seed.
- PI 533068 donor id: 86014. origin: Australia. collected: January 6, 1986. collector: C.F. Crane. collector id: 86014. locality: On granite on top of road cut by fence to pasture, 17 km W of Bathurst. remarks: Awns intermediate, curved, purple. Wild. Seed.

PI 533025 to 533182-continued

- PI 533069 donor id: 86015. origin: Australia. collected: January 6, 1986. collector: C.F. Crane. collector id: 86015. locality: On complex soil, developed on schist with intrusions overlain by red marly limestone, W of Orange, 59km W of Bathurst. remarks: Relatively sterile. Awns intermediate to long. Wild. Seed.
- PI 533070 donor id: 86017. origin: Australia. collected: January 6, 1986. collector: C.F. Crane. collector id: 86017. locality: Weedy pasture, NW of intersection of Highways 90 and 81, W of Orange. remarks: Plants uniform, <80cm tall. Awns intermediate. Seed set <1%. Wild. Seed.
- PI 533071 donor id: 86018. origin: Australia. collected: January 6, 1986. collector: C.F. Crane. collector id: 86018. locality: On schist, along Highway 91, 22km W of intersection with Highway 81 on way to Parkes. Wild. Seed.
- PI 533072 donor id: 86020. origin: Australia. collected: January 6, 1986. collector: C.F. Crane. collector id: 86020. locality: Old pasture or hayfield, soil red, well drained, E side of Parkes, 2km E of intersection of Highways 39 and 90. Wild. Seed.
- PI 533073 donor id: 86022. origin: Australia. collected: January 7, 1986. collector: C.F. Crane. collector id: 86022. locality: Near highway, soil hard, red-brown and alluvial, wildlife reserve, 4km S of Forbes. remarks: Plants standard intermediate to long-awned. Apomictic type. Wild. Seed.
- PI 533074 donor id: 86023. origin: Australia. collected: January 7, 1986. collector: C.F. Crane. collector id: 86023. locality: Open woodland, sandy soil, south-facing, rocky hillside, 34km SW of Forbes on Highway 39. remarks: Plants 50cm tall. Relatively fertile for this species. Awns intermediate. Wild. Seed.
- PI 533075 donor id: 86024. origin: Australia. collected: January 7, 1986. collector: C.F. Crane. collector id: 86024. locality: In fencerow, hard red clay with some gravel, 5km W of intersection of Highways 24 and 39, E of Wyalong. remarks: Plants mostly less than 50cm tall, abundant. Relatively fertile for this species. Awns intermediate. Wild. Seed.

PI 533025 to 533182-continued

- PI 533076 **donor id:** 86025. **origin:** Australia. **collected:** January 7, 1986. **collector:** C.F. Crane. **collector id:** 86025. **locality:** Roadside, fields beyond, eucalypt strip, soil red brown loam, 10km N of West Wyalong on road to Lake Cargelligo. **remarks:** Plants sterile. Awns long. Wild. Seed.
- PI 533077 **donor id:** 86026. **origin:** Australia. **collected:** January 7, 1986. **collector:** C.F. Crane. **collector id:** 86026. **locality:** In prairie between road and railroad tracks, 4km S of Ungarie on road to Lake Cargelligo. **remarks:** Awns long, >50mm. Relatively fertile. Wild. Seed.
- PI 533078 **donor id:** 86027. **origin:** Australia. **collected:** January 7, 1986. **collector:** C.F. Crane. **collector id:** 86027. **locality:** On road to Lake Cargelligo, 44km NW of Ungarie. **remarks:** Similar to PI 533077. Sparse. Seed varies in size, possible endosperm failure. Relatively fertile. Wild. Seed.
- PI 533079 **donor id:** 86028. **origin:** Australia. **collected:** January 7, 1986. **collector:** C.F. Crane. **collector id:** 86028. **locality:** Hard brown loam, on road to Hillston, 6km W of Lake Cargelligo. **remarks:** Fertile. Awns flat. Wild. Seed.
- PI 533080 **donor id:** 86029. **origin:** Australia. **collected:** January 7, 1986. **collector:** C.F. Crane. **collector id:** 86029. **locality:** Open Acacia woodland, on road from Lake Cargelligo, 40km E of Hillston. **remarks:** Plants depauperate, 8-25cm tall, 1-2 spikelets. Fertile. Functional annual. Wild. Seed.
- PI 533081 **donor id:** 86030. **origin:** Australia. **collected:** January 7, 1986. **collector:** C.F. Crane. **collector id:** 86030. **locality:** Under tall eucalypt, open overstory on red loam, on road to Merriwagga, 16km S of Hillston. **remarks:** Relatively fertile. Awns wide. Wild. Seed.
- PI 533082 **donor id:** 86031. **origin:** Australia. **collected:** January 7, 1986. **collector:** C.F. Crane. **collector id:** 86031. **locality:** Under Callitris, 17km S of Merriwagga. **remarks:** Awns wide. Fertility high. Wild. Seed.
- PI 533083 **donor id:** 86032. **origin:** Australia. **collected:** January 8, 1986. **collector:** C.F. Crane. **collector id:** 86032. **locality:** Disturbed roadside between highway and irrigation ditch, red loam soil, partial shade, 40.5km S of Goolgowi on hwy to Griffith. **remarks:** Awns wide. Fertility fair. Wild. Seed.

PI 533025 to 533182-continued

- PI 533084 donor id: 86033. origin: Australia. collected: January 8, 1986. collector: C.F. Crane. collector id: 86033. locality: Disturbed roadside from Griffith, soil red-brown loam, 21km W of Leeton. remarks: Plants sterile. Wild. Seed.
- PI 533085 donor id: 86034. origin: Australia. collected: January 8, 1986. collector: C.F. Crane. collector id: 86034. locality: Under Eucalyptus tree, brown sandy soil, near Narrandera airport. remarks: Concerned relative variation within colony. Seed set low overall. Wild. Seed.
- PI 533086 donor id: 86035. origin: Australia. collected: January 8, 1986. collector: C.F. Crane. collector id: 86035. locality: South side of Eucalyptus, red-brown loam, 64km W of Wagga Wagga along Sturt Highway. remarks: Mostly sterile. Awns intermediate to long. Wild. Seed.
- PI 533087 donor id: 86038. origin: Australia. collected: January 8, 1986. collector: C.F. Crane. collector id: 86038. locality: In shade, near the T intersection, Holbrook. remarks: Rather sterile. Wild. Seed.
- PI 533088 donor id: 86039. origin: Australia. collected: January 8, 1986. collector: C.F. Crane. collector id: 86039. locality: Grey-brown loam, plain W of Culcairn, 41km W of Holbrook. remarks: Mostly sterile. Awns intermediate to long. Wild. Seed.
- PI 533089 donor id: 86041. origin: Australia. collected: December 5, 1985. collector: C.F. Crane. collector id: 86041. locality: Deniliquin. remarks: Seeds provided by Dr. W.E. Mulham. Wild. Seed.
- PI 533090 donor id: 86044. origin: Australia. collected: January 09, 1986. collector: C.F. Crane. collector id: 86044. locality: On road to Milewa State Forest, 50m from PI 533183, Tuppal Creek, SE of Deniliquin. remarks: Plants tall, fertile, some sterile spikes. Wild. Seed.
- PI 533091 donor id: 86045. origin: Australia. collected: January 09, 1986. collector: C.F. Crane. collector id: 86045. locality: On low sand dunes with eucalypt overstory, Millewa State Forest, SE of Deniliquin. remarks: Apomictic, some fertile. Wild. Seed.
- PI 533092 donor id: 86046. origin: Australia. collected: January 09, 1986. collector: C.F. Crane. collector id: 86046. locality: Along Murray River, ca. 18 road km W of PI 533091, Millewa State Forest. remarks: Plants apomictic, fairly fertile, common. Wild. Seed.

PI 533025 to 533182-continued

- PI 533093 donor id: 86047. origin: Australia. collected: January 09, 1986. collector: C.F. Crane. collector id: 86047. locality: Brown-grey sand from stabilized low dunes, N side of central 1/3 of Millewa State Forest. remarks: Both fertile and sterile types present. Wild. Seed.
- PI 533094 donor id: 86050. origin: Australia. collected: January 10, 1986. collector: C.F. Crane. collector id: 86050. locality: Partial shade, grey-brown silt loam, just outside of Memorial Park, near entrance by city water tank, ca. 4m above flood plain, in partial shade, Deniliquin. remarks: Fertile. Awns intermediate, not curly, not strongly recurved even though they are dry. Wild. Seed.
- PI 533095 donor id: 86051. origin: Australia. collected: January 10, 1986. collector: C.F. Crane. collector id: 86051. locality: Under Hakea shrubs, on road to Wakool, 45km W of Deniliquin. remarks: More or less sterile. Wild. Seed.
- PI 533096 donor id: 86052. origin: Australia. collected: January 12, 1986. collector: C.F. Crane. collector id: 86052. locality: Near soccer field, < 1 m above bottom of shallow depression, unkempt city park of Dimboola. remarks: Single plant <.5m tall. Higher seed fertility than other long-awned accessions. Wild. Seed.
- PI 533097 donor id: 86054. origin: Australia. collected: January 12, 1986. collector: C.F. Crane. collector id: 86054. locality: Partial shade, silty soil 1 m above water in small slough, Williams Rd., 1.0km from Stawell Rd., Horsham. Wild. Seed.
- PI 533098 donor id: 86055. origin: Australia. collected: January 12, 1986. collector: C.F. Crane. collector id: 86055. locality: Crest of borrowing pit, rivers edge, S of bridge over Wimmera River, 20km W of Horsham. remarks: Plants tall, more or less sterile. Awns to 60mm long. Wild. Seed.
- PI 533099 donor id: 86056. origin: Australia. collected: January 12, 1986. collector: C.F. Crane. collector id: 86056. locality: Along Wimmera Highway, under red gum near Playa Lake, 34km E of Edenhope. remarks: Fertility low. Awns long. Wild. Seed.

PI 533025 to 533182-continued

- PI 533100 donor id: 86057. origin: Australia. collected: January 12, 1986. collector: C.F. Crane. collector id: 86057. locality: Vacant low area, W edge of town on Wimmera Highway, Apsley. remarks: Awns short-intermediate, strongly recurved. Tillering profuse. Spikes prostrate. Anthers sometimes exserted. Wild. Seed.
- PI 533101 donor id: 86058. origin: Australia. collected: January 12, 1986. collector: C.F. Crane. collector id: 86058. locality: Beige sand with olive-orange silty clay about 30cm down, 33km N of Naracoorte on road to Keith. remarks: Single plant more or less sterile. Awns long. Wild. Seed.
- PI 533102 donor id: 86061. origin: Australia. collected: January 15, 1986. collector: C.F. Crane. collector id: 86061. locality: Brown loam, roadside, 19km N of entrance to Wanilla State Forest, along alternate Highway 1, Eyre Peninsula. remarks: Mostly sterile. Wild. Seed.
- PI 533103 donor id: 86063. origin: Australia. collected: January 15, 1986. collector: C.F. Crane. collector id: 86063. locality: Near roadside trash can, 27km N of entrance to Wanilla State Forest on Alt. Highway 1, Eyre Peninsula. remarks: More or less sterile. Awns long. Wild. Seed.
- PI 533104 donor id: 86064. origin: Australia. collected: January 15, 1986. collector: C.F. Crane. collector id: 86064. locality: Grey sandy loam, between North Block and South Block, 300m E of crest on S side of gravel road., Eyre Peninsula. remarks: Seed set low. Awns long. Wild. Seed.
- PI 533105 donor id: 86066. origin: Australia. collected: January 16, 1986. collector: C.F. Crane. collector id: 86066. locality: In mallee on shallow, stony, brown loam over limestone, 9km SE of Streaky Bay on alternate Hwy 1. remarks: Seed set low. Awns intermediate to long. Wild. Seed.
- PI 533106 donor id: 86067. origin: Australia. collected: January 16, 1986. collector: C.F. Crane. collector id: 86067. locality: Shallow borrowing pit by road to Wirrulla, 7km N of Piednippie, 27km NE of Streaky Bay. remarks: Population mostly sterile. Awns intermediate to long. Wild. Seed.
- PI 533107 donor id: 86068. origin: Australia. collected: January 18, 1986. collector: C.F. Crane. collector id: 86068. locality: By golf course, shade, brown loam, N slope of Mt. Osmond, E of Adelaide. remarks: Sterile. Awns intermediate to long. Wild. Seed.

PI 533025 to 533182-continued

- PI 533108 donor id: 86070. origin: Australia. collected: January 18, 1986. collector: C.F. Crane. collector id: 86070. locality: Steep, southwest-facing slope, along roadside 1.1km W of The Range. remarks: Nearly sterile. Awns intermediate. Wild. Seed.
- PI 533109 donor id: 86071. origin: Australia. collected: January 19, 1986. collector: C.F. Crane. collector id: 86071. locality: Brown loam with schist and quartzite cobbles, along gravel road just off road to Macclesfield, 2km N of Strathalbyn. remarks: Fertility low. Awns intermediate-long. Wild. Seed.
- PI 533110 donor id: 86072. origin: Australia. collected: January 19, 1986. collector: C.F. Crane. collector id: 86072. locality: Roadside, in grey-brown loam on slate, in front of Anglican church, NE side of Echunga, on road to Mt. Barker. remarks: Fertility low. Awns intermediate. Wild. Seed.
- PI 533111 donor id: 86073. origin: Australia. collected: January 20, 1986. collector: C.F. Crane. collector id: 86073. locality: Disturbed roadside along Highway 1, 43km SE of Kingston Southeast. remarks: Fertility low. Awns intermediate. Wild. Seed.
- PI 533112 donor id: 86074. origin: Australia. collected: January 20, 1986. collector: C.F. Crane. collector id: 86074. locality: Red sandy clay over limestone, 6km E of Highway 1, across road from Kangaroo Inn Historical site, at T intersection on road to Pembola, 86km SE of Kingston Southeast. remarks: Fertility, relatively high for *E. rectisetus*. Wild. Seed.
- PI 533113 donor id: 86075. origin: Australia. collected: January 20, 1986. collector: C.F. Crane. collector id: 86075. locality: Grey sand with widely scattered limestone outcrops, roadside and adjacent Eucalyptus forest, 1 km W of T intersection, roads to Mt. Burr, Glencoe, and Highway 1. remarks: Seeds plump. Fertility low to moderate potentially a facultative apomict. Awns intermediate. Wild. Seed.
- PI 533114 donor id: 86076. origin: Australia. collected: January 20, 1986. collector: C.F. Crane. collector id: 86076. locality: Roadside, limestone islets, sand, 5km W of Wandilo. remarks: Fertility varies with season, early sterile, late up to 4 seeds per spikelet. Wild. Seed.

PI 533025 to 533182-continued

- PI 533115 donor id: 86077. origin: Australia. collected: January 20, 1986. collector: C.F. Crane. collector id: 86077. locality: On calcareous tuff with embedded limestone boulders, volcanic caldera rim overlooking Brownes Lake, Mt. Gambier, 100m up from parking lot on trail to Centenary Tower. remarks: >80% good seed. Awns intermediate to short. Wild. Seed.
- PI 533116 donor id: 86078. origin: Australia. collected: January 20, 1986. collector: C.F. Crane. collector id: 86078. locality: Brown clay loam, shallow over limestone, near entrance to former city dump, 10km W of intersection with road to Kongorong, Carpenters Rocks. remarks: Fertility moderate to low. Seeds mostly dropped. Awns short to intermediate. Wild. Seed.
- PI 533117 donor id: 86079. origin: Australia. collected: January 21, 1986. collector: C.F. Crane. collector id: 86079. locality: Soil variable, behind roadside trash can ca. 10m into the forest, road to Heywood, 25km E of Mt. Gambier, Victoria. remarks: Plants to 1.5m. Awns straight, intermediate. Wild. Seed.
- PI 533118 donor id: 86080. origin: Australia. collected: January 21, 1986. collector: C.F. Crane. collector id: 86080. locality: Grey fluffy loam, partial shade, intersection of roads to Nelson and Heywood, 55km E of Mt. Gambier, Winnap, Victoria. remarks: Plants tall. Wild. Seed.
- PI 533119 donor id: 86082. origin: Australia. collected: January 21, 1986. collector: C.F. Crane. collector id: 86082. locality: Ochre soil, limestone, gentle hillside S of stream along road, Charcoal Drain, Henty highway S of Hamilton, 7km S of Branhholme. remarks: Nearly sterile. Awns intermediate to long, curved. Wild. Seed.
- PI 533120 donor id: 86083. origin: Australia. collected: January 21, 1986. collector: C.F. Crane. collector id: 86083. locality: Brown loam, open sunny roadside next to overgrazed sheep pasture, 500m S of intersection of Henty Highway and road to Port Fairy, Hamilton. remarks: Fertility moderate, >1.5 seed per spikelet on few spikes. Plants sampled 20. Wild. Seed.
- PI 533121 donor id: 86084. origin: Australia. collected: January 22, 1986. collector: C.F. Crane. collector id: 86084. locality: Black loam, roadside along Hamilton Highway, 6km E of Peshurst. remarks: Plants tall. Fertility low. Awns long, slightly bent. Wild. Seed.

PI 533025 to 533182-continued

- PI 533122 donor id: 86085. origin: Australia. collected: January 22, 1986. collector: C.F. Crane. collector id: 86085. locality: Dark grey-brown loam, open roadside, full sun, 40km E of Penshurst. remarks: Fertility low. Awns recurved, intermediate to long. Many seeds thin indicating endosperm failure. Wild. Seed.
- PI 533123 donor id: 86086. origin: Australia. collected: January 22, 1986. collector: C.F. Crane. collector id: 86086. locality: Light grey-brown clay loam, roadside, partial shade, afternoon sun, 19km S of Derrinallum. remarks: > 1 seed per spikelet. Tillering high. Awns intermediate, bent, recurved. Wild. Seed.
- PI 533124 donor id: 86087. origin: Australia. collected: January 22, 1986. collector: C.F. Crane. collector id: 86087. locality: Roadside edge, road from Derrinallum, 28km N of Port Campbell. remarks: Seeds per spikelet up to 4, mean >1.5. Awns intermediate. Wild. Seed.
- PI 533125 donor id: 86088. origin: Australia. collected: January 22, 1986. collector: C.F. Crane. collector id: 86088. locality: Brown loam, roadside S end of Port Campbell Cemetery. remarks: Plants short. Seed plump. Fertility moderate to low. Wild. Seed.
- PI 533126 donor id: 86089. origin: Australia. collected: January 23, 1986. collector: C.F. Crane. collector id: 86089. locality: Brown loam, disturbed roadside and excavated ditch, McDonnells road, main highway to Melbourne, 16km E of Colac. remarks: Fertility low. Awns intermediate, straight to slightly curved. Wild. Seed.
- PI 533127 donor id: 86094. origin: Australia. collected: January 24, 1986. collector: C.F. Crane. collector id: 86094. locality: S-curves, open scrub, hillside, Studley Park, 4km from Yarra Boulevard, Melbourne. remarks: Fertility moderately low. Awns intermediate, recurved. Wild. Seed.
- PI 533128 donor id: 86095. origin: Australia. collected: January 24, 1986. collector: C.F. Crane. collector id: 86095. locality: Red-brown clay loam, near freeway, Lion Park Rd., 53km E of Ballarat. remarks: Nearly sterile. Awns intermediate, almost straight. Wild. Seed.
- PI 533129 donor id: 86096. origin: Australia. collected: January 25, 1986. collector: C.F. Crane. collector id: 86096. locality: Open roadside, 14km W of ballarat, about 200m N of Western highway on side road. remarks: Fertility low. Awns intermediate to long. Wild. Seed.

PI 533025 to 533182-continued

- PI 533130 donor id: 86097. origin: Australia. collected: January 25, 1986. collector: C.F. Crane. collector id: 86097. locality: Yellow orange clay with chert fragments, roadside, 41km W of Ballarat on Western highway. remarks: Fertility very low. Awns intermediate to long. Wild. Seed.
- PI 533131 donor id: 86098. origin: Australia. collected: January 25, 1986. collector: C.F. Crane. collector id: 86098. locality: Roadside, along Western Hwy, valley floor, near E slope of mountain, 73km W of Ballarat. remarks: Fertility low. Awns long. Wild. Seed.
- PI 533132 donor id: 86100. origin: Australia. collected: January 25, 1986. collector: C.F. Crane. collector id: 86100. locality: Stawell, 250m along road to Halls Gap from its intersection with Western highway. remarks: Stem glaucous. Sheath pubescent. Fertility moderate. Awns intermediate to long, curved. Average tillering. Some plants infected with head smut (*Ustilago bullata*). Wild. Seed.
- PI 533133 donor id: 86101. origin: Australia. collected: January 25, 1986. collector: C.F. Crane. collector id: 86101. locality: Grey sandy loam between road and brackens, intersection of main highway with side road to Silverband Falls, Grampians National Park, 7km S of Halls Gap. remarks: Fertile. Maturity late, continuing flowering. Seeds not especially mature. Wild. Seed.
- PI 533134 donor id: 86102. origin: Australia. collected: January 25, 1986. collector: C.F. Crane. collector id: 86102. locality: Nearly level, well drained area on road to Halls Gap, 16.7km SW of Stawell. remarks: Fertility low. Awns medium to long. Wild. Seed.
- PI 533135 donor id: 86104. origin: Australia. collected: January 25, 1986. collector: C.F. Crane. collector id: 86104. locality: Sandy brown loam, light shade, road to Bendigo, just beyond SE city limit of St. Arnaud. remarks: Fertility low to moderate, 3-4 seeds/spike. Awns long, recurved. Wild. Seed.
- PI 533136 donor id: 86108. origin: Australia. collected: January 26, 1986. collector: C.F. Crane. collector id: 86108. locality: Orange clay with quartz pebbles, roadside, near stock pond and farmstead in rolling terrain, along McIvor Highway, 4km NW of Heathcote, 39km SE of Bendigo. remarks: Nearly sterile. Awns long, curved. Caespitose with abundant tillering on larger specimens. Wild. Seed.

PI 533025 to 533182-continued

- PI 533137 donor id: 86109. origin: Australia. collected: January 26, 1986. collector: C.F. Crane. collector id: 86109. locality: Regenerating forest, on road to Seymour, 19km SE of Heathcote. remarks: Fertile. Awns intermediate to long, curved. Wild. Seed.
- PI 533138 donor id: 86110. origin: Australia. collected: January 26, 1986. collector: C.F. Crane. collector id: 86110. locality: Level upland site, along Highway 39 to Shepparton, 18km S of Nagambie. remarks: Fertility very low. Awns long, curved. Wild. Seed.
- PI 533139 donor id: 86111. origin: Australia. collected: January 26, 1986. collector: C.F. Crane. collector id: 86111. locality: Grey silty clay, level roadside, 26km N of Nagambie on Highway 39. remarks: Fertility above average. Awns long, curved. Wild. Seed.
- PI 533140 donor id: 86116. origin: Australia. collected: January 27, 1986. collector: C.F. Crane. collector id: 86116. locality: Gravelly brown loam, full sun, 8.0km NW of entrance to Dookie Agricultural College, few km NW of Dookie and its radio towers. remarks: Mostly sterile. Awns long, curved. Wild. Seed.
- PI 533141 donor id: 86117. origin: Australia. collected: January 27, 1986. collector: C.F. Crane. collector id: 86117. locality: Sandy, gravelly grey loam, near local waterfall attraction, on road to Merton from Euroa, 22.3km S of Euroa intersection and highway 31. remarks: Fertility moderate, up to one seed per spikelet. Awns intermediate to long. Wild. Seed.
- PI 533142 donor id: 86118. origin: Australia. collected: January 27, 1986. collector: C.F. Crane. collector id: 86118. locality: Shade, grey-brown loam over unknown substrate, 23.7km S of Euroa on road to Merton. remarks: Fertility low to moderate, up to two seeds per spikelet. Sheaths pubescent. Wild. Seed.
- PI 533143 donor id: 86119. origin: Australia. collected: January 27, 1986. collector: C.F. Crane. collector id: 86119. locality: Grey silt loam, 27.5km S of Euroa, S side of divide on road to Merton. remarks: Up to 3 seeds/spikelet. Awns intermediate, curved. Wild. Seed.
- PI 533144 donor id: 86120. origin: Australia. collected: January 28, 1986. collector: C.F. Crane. collector id: 86120. locality: Junction on road to Mt. Buller, 6.7km E of Mansfield. remarks: Fertility low to very low. Awns intermediate to long. Wild. Seed.

PI 533025 to 533182-continued

- PI 533145 donor id: 86121. origin: Australia. collected: January 28, 1986. collector: C.F. Crane. collector id: 86121. locality: Roadside bank with shade, on way to Mt. Buller, 20.6km E of Mansfield. remarks: Fertility low. Awns intermediate. Wild. Seed.
- PI 533146 donor id: 86122. origin: Australia. collected: January 28, 1986. collector: C.F. Crane. collector id: 86122. locality: Granite, on road to Mt. Buller, 28.1km E of Mansfield. remarks: Fertile. Awns straight, intermediate. Wild. Seed.
- PI 533147 donor id: 86125. origin: Australia. collected: January 28, 1986. collector: C.F. Crane. collector id: 86125. locality: Metamorphosed shale, red brown, yellow brown (road fill) soil, gravel road to Licola, 12.5km SE of Jamieson. remarks: Two or three forms. One not ripe with yellow anthers. One moderately fertile. Awns medium long. One short-medium awned and least fertile. Wild. Seed.
- PI 533148 donor id: 86127. origin: Australia. collected: January 29, 1986. collector: C.F. Crane. collector id: 86127. locality: Mostly mowed roadside, 12km E of Benalla, along Highway 31. remarks: Fertility low. Awns variable. Mowed plants more fertile than unmowed ones. Wild. Seed.
- PI 533149 donor id: 86128. origin: Australia. collected: January 29, 1986. collector: C.F. Crane. collector id: 86128. locality: Gravel and cobbles in brown soil over yellow clay, intersection of Ovens Highway and road to Gelnrowan. remarks: Fertility very low. Awns intermediate. Seed mostly dropped. Wild. Seed.
- PI 533150 donor id: 86129. origin: Australia. collected: January 29, 1986. collector: C.F. Crane. collector id: 86129. locality: Brown loam over red clay, 1.4km E of intersection of Ovens Highway and road to Mt. Beauty. remarks: Fertility low to moderate. Awns intermediate. Wild. Seed.
- PI 533151 donor id: 86130. origin: Australia. collected: January 29, 1986. collector: C.F. Crane. collector id: 86130. locality: Road fill, phyllite and slate, light shade, 9km E of intersection of Ovens Highway and Road to Mt. Beauty. remarks: Slightly more fertile than PI 533150. Seed set low to moderate. Wild. Seed.

PI 533025 to 533182-continued

- PI 533152 donor id: 86132. origin: Australia. collected: January 30, 1986. collector: C.F. Crane. collector id: 86132. locality: Along Cotter Rd., original soil surface, re-exposed during construction, yellow granite, 10.2km W of intersection of Lady Denman Dr. and Cotter Rd., Canberra. remarks: Mean 1.3 seeds/spikelet (up to 6). Awns long, recurved. Stem glaucous toward base. Wild. Seed.
- PI 533153 donor id: 86133. origin: Australia. collected: January 30, 1986. collector: C.F. Crane. collector id: 86133. locality: Deeply weathered felsite, enroute to Piccadilly Circus. 4.4km W and S of Brindabella-Uriarra Rd. intersection. remarks: Up to 3 seeds/spikelet. Awns intermediate to long. Wild. Seed.
- PI 533154 donor id: 86134. origin: Australia. collected: January 30, 1986. collector: C.F. Crane. collector id: 86134. locality: Road cut, especially along top, 11.4km SW of Brindabella-Uriarra Rd. intersection. remarks: Up to 2 seeds/spikelet. Awns intermediate to long. Wild. Seed.
- PI 533155 donor id: 86136. origin: Australia. collected: January 31, 1986. collector: C.F. Crane. collector id: 86136. locality: White feldspar, mica, lower north slope of Fitz's hill, road to Gudgenby. remarks: Up to 4 seeds/spikelet. Awns intermediate to long. Wild. Seed.
- PI 533156 donor id: 86140. origin: Australia. collected: January 31, 1986. collector: C.F. Crane. collector id: 86140. locality: Rotten granite or felsite, Willoona Homestead, on road to Adaminaby. remarks: Fertility low. Awns long. Wild. Seed.
- PI 533157 donor id: 86142. origin: Australia. collected: January 31, 1986. collector: C.F. Crane. collector id: 86142. locality: Brown-grey loam, basalt substrate, 14.6km N of intersection of Bobundara Rd. with road to Nimmitabel, about 15km S of Cooma. remarks: Seed set very low but up to 3 seeds/spikelet on few recent spikes. Awns long. Wild. Seed.
- PI 533158 donor id: 86143. origin: Australia. collected: February 01, 1986. collector: C.F. Crane. collector id: 86143. locality: Red brown loam over basalt, full sun, S of Cooma on main road to Nimmitabel, 29.5km N of Nimmitabel, 30.1km N of side road to Dalgety. remarks: Mostly sterile. Mean around 1.5 seeds/spikelet. Awns intermediate to long. Wild. Seed.

PI 533025 to 533182-continued

- PI 533159 donor id: 86144. origin: Australia. collected: February 01, 1986. collector: C.F. Crane. collector id: 86144. locality: Dark brown soil, 21km N of Nimmitabel on main road from Cooma, 21.7km N of turnoff to Dalgety. remarks: Similar to PI 533158. Up to 7 seeds per spikelet on one late plant. Wild. Seed.
- PI 533160 donor id: 86145. origin: Australia. collected: February 01, 1986. collector: C.F. Crane. collector id: 86145. locality: Dark brown to black soil over basalt, gravel road to Dalgety, on road cuts and fill 15.7km W of intersection with Highway 23 at Nimmitabel on gravel road to Dalgety. remarks: Fertility low, 1-3 seeds/spikelet. Awns intermediate to long. Wild. Seed.
- PI 533161 donor id: 86148. origin: Australia. collected: February 02, 1986. collector: C.F. Crane. collector id: 86148. locality: Soil over basalt, 0.2km W of turnoff on road to Holts Flat Siding, 18km S of Nimmitabel. remarks: Plants form turf, very dense stands. Fertility low. Awns intermediate. Population polymorphic for purple and yellow seeds. Ripe seed uncommon. Wild. Seed.
- PI 533162 donor id: 86150. origin: Australia. collected: February 02, 1986. collector: C.F. Crane. collector id: 86150. locality: Yellow soil, rotten diorite boulder nearby, 21.4km S of Bibbenluke on road to Delegate (highway 23) W of Bombala. remarks: Fertility low, but up to 4 seeds per spikelet. Awns intermediate. Wild. Seed.
- PI 533163 donor id: 86151. origin: Australia. collected: February 02, 1986. collector: C.F. Crane. collector id: 86151. locality: Roadside, full sun, pasture entrance, SW of Delegate on Bonang Highway, 1.5km E of border with Victoria. remarks: Fertility moderate. Plants mostly prostrate. Awns long. Seeds mostly immature. Wild. Seed.
- PI 533164 donor id: 86152. origin: Australia. collected: February 02, 1986. collector: C.F. Crane. collector id: 86152. locality: Brown silt loam, roadside, partial shade, 2.3km W of Tubbut. remarks: Fertility low. Awns intermediate. Wild. Seed.
- PI 533165 donor id: 86153. origin: Australia. collected: February 02, 1986. collector: C.F. Crane. collector id: 86153. locality: Red soil, deeply weathered diorite, along top of road cut, 11.3km W of Tubbut. remarks: Fertility very low. Awns intermediate, bent at 90 degree angle. Wild. Seed.

PI 533025 to 533182-continued

- PI 533166 donor id: 86154. origin: Australia. collected: February 02, 1986. collector: C.F. Crane. collector id: 86154. locality: Grey loam, scattered on dry forest floor, 38.2km W of Tubbut. remarks: Fertility low to moderate. Awns intermediate, bent. Wild. Seed.
- PI 533167 donor id: 86155. origin: Australia. collected: February 02, 1986. collector: C.F. Crane. collector id: 86155. locality: Between gravel road and sole farmstead, Suggan Buggan. remarks: Fertility low. Wild. Seed.
- PI 533168 donor id: 86156. origin: Australia. collected: February 03, 1986. collector: C.F. Crane. collector id: 86156. locality: Picnic area, beyond third bridge, creek bank, Buchan Caves Park, just NW of Buchan. remarks: Spike ca. 25.4cm long, very tall. Fertile mostly asynaptic and apomictic. Seeds up to 4/spikelet. Wild. Seed.
- PI 533169 donor id: 86158. origin: Australia. collected: February 06, 1986. collector: C.F. Crane. collector id: 86158. locality: Dark chocolate brown loam over dolerite, The Domain, Hobart. remarks: Two forms differing in stem thickness. Fertility very low. Awns mostly long. Wild. Seed.
- PI 533170 donor id: 86162. origin: Australia. collected: February 06, 1986. collector: C.F. Crane. collector id: 86162. locality: Roadside, grey silt loam, hilltop, 6.6km E of South Arm Recreation Area SE of Hobart. remarks: About 0.5 seed/spikelet. Awns intermediate. Colony varies for awn length and curvature. Wild. Seed.
- PI 533171 donor id: 86165. origin: Australia. collected: February 06, 1986. collector: C.F. Crane. collector id: 86165. locality: Behind sand dunes and on second dune from sea, South Arm Recreation Area, SE of Hobart. remarks: Fertility generally very low. Up to 3 seeds per spikelet. Awns intermediate. Wild. Seed.
- PI 533172 donor id: 86166. origin: Australia. collected: February 06, 1986. collector: C.F. Crane. collector id: 86166. locality: Siltstone, Storm Bay overlook, South Arm Recreation Area, 250m seaward from paved road, 6km S of South Arm. remarks: Fertility very low. Awns long. Wild. Seed.

PI 533025 to 533182-continued

- PI 533173 donor id: 86167. origin: Australia. collected: February 07, 1986. collector: C.F. Crane. collector id: 86167. locality: Over basalt, Jordan River crossing on road to Tea Tree, lower slope of hill W of crossing, Pontville. remarks: Culms weak. Late spikelets more fertile than early ones. Anthers purple. Awns mostly intermediate to long, few with short-intermediate awns. Wild. Seed.
- PI 533174 donor id: 86169. origin: Australia. collected: February 07, 1986. collector: C.F. Crane. collector id: 86169. locality: Yellow-brown cracking clay over shale, 2.0km S of Kempton on Midland Highway. remarks: Plants floppy, with purple seed. Up to 3 seeds/spikelet. Awns intermediate. Wild. Seed.
- PI 533175 donor id: 86170. origin: Australia. collected: February 07, 1986. collector: C.F. Crane. collector id: 86170. locality: Brown clay loam over interbedded shale and sandstone, Spring Hill, highest point on Midland Highway. elevation: 480m. remarks: Plants floppy. Stems long. Up to 4 seed/spikelet, similar to PI 533163. Wild. Seed.
- PI 533176 donor id: 86171. origin: Australia. collected: February 07, 1986. collector: C.F. Crane. collector id: 86171. locality: Level site, full sun, 24.4km N of Campbell Town, Midland Highway. remarks: Plants floppy. Awns intermediate, curved. Wild. Seed.
- PI 533177 donor id: 86176. origin: Australia. collected: February 07, 1986. collector: C.F. Crane. collector id: 86176. locality: Along gravel road, yellow silty clay with quartz fragments, favored by clearing and sunlight, 0.7km up road to Mt. Barrow from Tasman Highway, NE of Launceston. remarks: Fertility moderate. Few spikes ripe. Polymorphic for sheath pubescence. Awns intermediate to almost long. Wild. Seed.
- PI 533178 donor id: 86177. origin: New Zealand. collected: February 10, 1986. collector: C.F. Crane. collector id: 86177. locality: Light brown silt loam over lava, along road below Buckleys Bay Scenic Reserve, NE of Lyttleton. remarks: Fertility varies from 0.1 seed/spikelet on mature spikes to maximum of 4 seeds in one spikelet on an immature spike. Awns straight, intermediate to long, not glaucous. Leaf sheath with some pubescence. Wild. Seed.

PI 533025 to 533182-continued

PI 533179 donor id: 86185. origin: New Zealand. collected: February 12, 1986. collector: C.F. Crane. collector id: 86185. locality: Stony till or outwash, S of entrance to Mt. Cheeseman Ski Field, on hillside facing N, between Highway 73 and fence, inland Canterbury. remarks: Tawera type. Seeds purple, up to 2-8 per spikelet. Awns strongly recurved, intermediate to long. received as: E. solandri. Wild. Seed.

PI 533180 donor id: 86224. origin: New Zealand. collected: February 18, 1986. collector: C.F. Crane. collector id: 86224. locality: On cliff of fossiliferous limestone facing inland to the W and also E of the lighthouse at Castlepoint. remarks: Wellington type. Plants short, 4dm tall. Awns long. Seeds yellow. received as: E. solandri. Wild. Seed.

PI 533181 donor id: 86302. origin: New Zealand. collected: April 11, 1986. collector: C.F. Crane. collector id: 86302. locality: DSIR Taita Research Centre, Lower Hutt. elevation: 1068m. remarks: Originally let stand from Cobb Valley, NW Nelson. Donated by Dr. A. P. Druce. received as: E. solandri. Wild. Seed.

PI 533182 donor id: 86602. origin: Australia. collected: February 21, 1986. collector: C.F. Crane. collector id: 86602. locality: Roadside, open forest, top of range, 22.3km S of Honeysuckle road on Gudgenby Road. remarks: Mixed fertility, awn lengths, and seed color. Originally collected by Dr. S. Ryan, CSIRO, Canberra. Wild. Seed.

PI 533183 to 533190. *Elymus scabrus* var. *parviflorus* ined. POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

PI 533183 donor id: 86043. origin: Australia. collected: January 09, 1986. collector: C.F. Crane. collector id: 86043. locality: Grey silty clay, on road to Millewa State Forest, Tuppal creek, SE of Deniliquin. remarks: Awns very short. Collected with W.E. Mulham. Wild. Seed.

PI 533184 donor id: 86049. origin: Australia. collected: January 10, 1986. collector: C.F. Crane. collector id: 86049. locality: Floodplain of Edwards River, partial shade, Memorial Park entrance near city water tank, S side of park, Deniliquin. remarks: Awns short. Six plants sampled at 5m intervals. Wild. Seed.

PI 533183 to 533190-continued

- PI 533185 donor id: 86092. origin: Australia. collected: January 23, 1986. collector: C.F. Crane. collector id: 86092. locality: Stem of Oxbow Lake, Willsmere Park, Kew. remarks: Plants petite. Awns short, lowermost florets awnless. Wild. Seed.
- PI 533186 donor id: 86093. origin: Australia. collected: January 23, 1986. collector: C.F. Crane. collector id: 86093. locality: Dark grey clay, partial shade, E bank oxbow lake, Willsmere Park, Kew. remarks: Tillering abundant. Awns vary 0 to a few mm. Wild. Seed.
- PI 533187 donor id: 86112. origin: Australia. collected: January 26, 1986. collector: C.F. Crane. collector id: 86112. locality: Low area near river, W of Shepparton, SW side of Shepparton State Forest. remarks: Plants tall, growing in large bunches. Awns short. Wild. Seed.
- PI 533188 donor id: 86113. origin: Australia. collected: January 26, 1986. collector: C.F. Crane. collector id: 86113. locality: NW of soccer field, Jaycee park, northwest Shepparton. remarks: Awns short, variable in length. Twenty plants sampled. Wild. Seed.
- PI 533189 donor id: 86114. origin: Australia. collected: January 27, 1986. collector: C.F. Crane. collector id: 86114. locality: Grey-brown silty clay, 20m from the Boulevard at vertex of river bend and along the river-bank and rim, Stuart Park opposite Allambhi St., Shepparton. remarks: Awns short. Wild. Seed.
- PI 533190 donor id: 86157. origin: Australia. collected: February 03, 1986. collector: C.F. Crane. collector id: 86157. locality: Light grey-brown loamy sand, back of sand dune away from ocean, S end of Lake Corringale, S of Orbost. remarks: Plants 1 m tall. Less than 1 seed per spikelet. Awns short. Wild. Seed.

PI 533191 to 533205. *Elymus scabrus* var. *plurinervis* (Vick.) B. Simon
POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

PI 533191 to 533205-continued

- PI 533191 donor id: 1004. origin: Australia. collected: November 23, 1985. collector: J.G. Carman. collector id: 1004. locality: Along roadside, clay loam, 42.5km S of Gatton on west side of road leading to Clifton. remarks: Plants intermediate, 75-100cm tall. Awns intermediate in length, geniculate at maturity. Population widely dispersed, morphologically variable. received as: *E. plurinervis*. Wild. Seed.
- PI 533192 donor id: 1005. origin: Australia. collected: November 23, 1985. collector: J.G. Carman. collector id: 1005. locality: Roadside, clay loam, 8.0km E of Clifton near intersection with Highway 42. remarks: Plants intermediate, 75-125cm tall. Awns intermediate. Population widely dispersed, morphologically variable. Maturity varied from pre-anthesis to ripe seed. received as: *E. plurinervis*. Wild. Seed.
- PI 533193 donor id: 1007. origin: Australia. collected: November 23, 1985. collector: J.G. Carman. collector id: 1007. locality: Open field, 29km ESE of Millerran on dirt road between Millerran and Layburn. remarks: Plants 50-150cm tall. Awns medium. Dominant species. Morphologically fairly uniform. received as: *E. plurinervis*. Wild. Seed.
- PI 533194 donor id: 1008. origin: Australia. collected: November 23, 1985. collector: J.G. Carman. collector id: 1008. locality: 4.2km N of Cecil Plains. remarks: Plants tall, 50-150cm. Awns medium, geniculate at maturity. Population highly variable morphologically. received as: *E. plurinervis*. Wild. Seed.
- PI 533195 donor id: 1009. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1009. locality: Farmland area, S of road, 21km NW of Dalby on highway to Chinchilla. remarks: Plants tall, 50-150cm. Awns medium. received as: *E. plurinervis*. Wild. Seed.
- PI 533196 donor id: 1010B. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1010B. locality: Road to Bell, 10.4km N of Dalby. remarks: Plants short to tall, 50-150cm. Awns intermediate length. Population variable. received as: *E. plurinervis*. Wild. Seed.
- PI 533197 donor id: 1020. origin: Australia. collected: November 25, 1985. collector: J.G. Carman. collector id: 1020. locality: Cunningham Highway, 4.7km W of Maryvale. remarks: Plants tall, 75-150cm. Awns long. Tends to ripen faster than short-awned types. received as: *E. plurinervis*. Wild. Seed.

PI 533191 to 533205-continued

- PI 533198 donor id: 1022. origin: Australia. collected: November 25, 1985. collector: J.G. Carman. collector id: 1022. locality: Hendon turnoff of Allora-Duchar Road, approximately 4km S of Allora. received as: E. plurinervis. Wild. Seed.
- PI 533199 donor id: 1024. origin: Australia. collected: November 25, 1985. collector: J.G. Carman. collector id: 1024. locality: Dark clay loam soil, 12.1km SE of Warwick on road to Killarney. remarks: Awns long. Glumes long, 10-14 nerves. received as: E. plurinervis. Wild. Seed.
- PI 533200 donor id: 1028. origin: Australia. collected: November 27, 1985. collector: J.G. Carman. collector id: 1028. locality: Dark soils, S side of highway leading to Dalby, 49.6km SE of Chinchilla. received as: E. plurinervis. Wild. Seed.
- PI 533201 donor id: 1039. origin: Australia. collected: November 30, 1985. collector: J.G. Carman. collector id: 1039. locality: Full sun in open field, 23.1km SE of Goodiwindi on N side of new portion of Bruxner Highway. remarks: Plants tall, 30-100cm. Awns bent. Glumes large. Most seeds dropped. received as: E. plurinervis. Wild. Seed.
- PI 533202 donor id: 1040. origin: Australia. collected: November 30, 1985. collector: J.G. Carman. collector id: 1040. locality: Open field, 56km SE of Gooniwindi on E side of new portion of Bruxner Highway. received as: E. plurinervis. Wild. Seed.
- PI 533203 donor id: 1054. origin: Australia. collected: December 01, 1985. collector: J.G. Carman. collector id: 1054. locality: 17km W of Burren Junction. remarks: Originally collected by Guy C. Robinson. Seed taken from greenhouse-grown material. received as: E. plurinervis. Wild. Seed.
- PI 533204 donor id: 1059. origin: Australia. collected: December 01, 1985. collector: J.G. Carman. collector id: 1059. locality: N side of Gwydir Highway, 31.3km W of Inverell. received as: E. plurinervis. Wild. Seed.
- PI 533205 donor id: 1063. origin: Australia. collected: December 02, 1985. collector: J.G. Carman. collector id: 1063. locality: Along banks of Brown's Creek, 30.6km NE of Narrabri on road leading to Caroda. received as: E. plurinervis. Wild. Seed.

PI 533206 to 533232. *Elymus scabrus* (R. Br.) A. Love var. *scabrus*
POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science,
Utah State University, Logan, Utah, United States. Received
February 1988.

- PI 533206 donor id: 1001. origin: Australia. collected: November 23, 1985. collector: J.G. Carman. collector id: 1001. locality: Clay loam soil, roadside, N of Pine Mountain Rd., 6.1km from Highway 54 near Ipswich. remarks: Plants 75-125cm tall with young tillers just past anthesis. Awns short. Inflorescence drooping. Population small. Morphologically uniform. Wild. Seed.
- PI 533207 donor id: 1002. origin: Australia. collected: November 23, 1985. collector: J.G. Carman. collector id: 1002. locality: Clay loam soil, 6.9km S of Gatton on W side of road leading to Clifton. remarks: Plants short, 50-75cm tall. Awns short. Population small. Morphologically uniform. Wild. Seed.
- PI 533208 donor id: 1003. origin: Australia. collected: November 23, 1985. collector: J.G. Carman. collector id: 1003. locality: Higher elevation than for PI 533207, 33.7km S of Gatton on W side of road leading to Clifton. remarks: Plants short, 50-75cm tall. Awns short. Ripe seeds few. Population widely dispersed. Morphologically uniform. Wild. Seed.
- PI 533209 donor id: 1006. origin: Australia. collected: November 23, 1985. collector: J.G. Carman. collector id: 1006. locality: Floodplain of small creek, 4km ESE of Millerran on dirt road between Layburn and Millerran. remarks: Plants generally tall, 50-150cm. Awns medium. Population distributed throughout creek, otherwise not widely present, morphologically variable. Wild. Seed.
- PI 533210 donor id: 1010A. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1010A. locality: Road to Bell, 10.4km N of Dalby. remarks: Plants short to tall, 50-150cm. Awns intermediate length. Population variable. Wild. Seed.
- PI 533211 donor id: 1011. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1011. locality: On highway leading to Kingaroy, 32.3km N of Bell. remarks: Plants 50-150cm tall, not widely distributed in this area. Awns short. Wild. Seed.

PI 533206 to 533232-continued

- PI 533212 donor id: 1012. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1012. locality: On road to Kingaroy, 15.6km NE of Kumbia. remarks: Plants 50-100cm tall, not widely distributed in this area. Awns short. Wild. Seed.
- PI 533213 donor id: 1014. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1014. locality: Under woody canopy, mountainous area 9km SW of Yarraman on highway detour leading to Toowoomba. remarks: Plants 50-100cm tall, uniform, widely distributed. Awns short. Uniform population, possibly apomitic. Wild. Seed.
- PI 533214 donor id: 1015. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1015. locality: On New England Highway, 50km S of Yarraman. remarks: Plants short, 20-75cm. Awns short. Various stages of maturity from boot to ripe seed. Wild. Seed.
- PI 533215 donor id: 1016. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1016. locality: On New England Highway, near Toowoomba, 23.3km S of Crow's Nest. remarks: Plants short, 50-100cm. Awns short. Various stages of maturity from boot to nearly ripe. Wild. Seed.
- PI 533216 donor id: 1017. origin: Australia. collected: November 24, 1985. collector: J.G. Carman. collector id: 1017. locality: Field, in town on Brisbane St. near bridge, Drayton. remarks: Awns short. Seeds nearly mature. Wild. Seed.
- PI 533217 donor id: 1019. origin: Australia. collected: November 25, 1985. collector: J.G. Carman. collector id: 1019. locality: On Cunningham Highway, 4km E of Maryvale. remarks: Plants 30-75cm tall. Awns short. Wild. Seed.
- PI 533218 donor id: 1021. origin: Australia. collected: November 25, 1985. collector: J.G. Carman. collector id: 1021. locality: E side of Cunningham Highway, 4.7km W of Maryvale. remarks: Plants 20-75cm tall. Awns short. Wild. Seed.
- PI 533219 donor id: 1025. origin: Australia. collected: November 25, 1985. collector: J.G. Carman. collector id: 1025. locality: Dark clay loam soil, 12.1km SE of Warwick on road to Killarney. remarks: Plants 50-100cm tall. Awns short. Wild. Seed.

PI 533206 to 533232-continued

- PI 533220 donor id: 1026. origin: Australia. collected: November 27, 1985. collector: J.G. Carman. collector id: 1026. locality: SE on Bunya Highway and 4.6km E on road to Goomeri, 10.6km E of Murgon. remarks: Plants 30-100cm tall. Awns short. Northeast naturally occurring apparent limit of species. Wild. Seed.
- PI 533221 donor id: 1027. origin: Australia. collected: November 27, 1985. collector: J.G. Carman. collector id: 1027. locality: Soil light brown, 7.8km SW of Wondai on E side of Bunya Highway. remarks: Plants 50-150cm tall. Awns short. Wild. Seed.
- PI 533222 donor id: 1029. origin: Australia. collected: November 27, 1985. collector: J.G. Carman. collector id: 1029. locality: S side of highway leading to Dalby, 49.6km SE of Chinchilla. remarks: Plants medium height, 25-100cm tall. Awns short. Wild. Seed.
- PI 533223 donor id: 1030. origin: Australia. collected: November 28, 1985. collector: J.G. Carman. collector id: 1030. locality: In field to the NE of Leichhart Highway-Nathan Road junction, 6.3km N of Wandoan. remarks: Plants 30-75cm tall. Awns short. Major component of savanna type understory. Wild. Seed.
- PI 533224 donor id: 1031. origin: Australia. collected: November 28, 1985. collector: J.G. Carman. collector id: 1031. locality: Adjacent to flood plain of small intermittent stream, S side of road between Wandoan and Jackson, 20.5km SW of Wandoan. remarks: Plants 30-100cm tall. Awns short. Population well established. Wild. Seed.
- PI 533225 donor id: 1032. origin: Australia. collected: November 28, 1985. collector: J.G. Carman. collector id: 1032. locality: Flood plain, N side of highway, 0.4km E of Yuleba. remarks: Plants 50-150cm tall. Awns short. Wild. Seed.
- PI 533226 donor id: 1033. origin: Australia. collected: November 28, 1985. collector: J.G. Carman. collector id: 1033. locality: N side of Warrego Highway, 4.3km W of Roma. remarks: Plants 30-75cm tall. Awns short. Wild. Seed.
- PI 533227 donor id: 1035. origin: Australia. collected: November 28, 1985. collector: J.G. Carman. collector id: 1035. locality: Along bank of the Warrego River, soil sandy, SE corner of intersection of Elmes Rd. and Old Tambo Rd., Augathella. remarks: Plants 30-75cm tall. Awns short. Wild. Seed.

PI 533206 to 533232-continued

- PI 533228 donor id: 1036. origin: Australia. collected: November 29, 1985. collector: J.G. Carman. collector id: 1036. locality: Along stream bank, W side of highway and S side of Arrest Creek, soil dark, sandy, 7.4km S of Mitchell. remarks: Plants 50-100cm tall. Awns short. Wild. Seed.
- PI 533229 donor id: 1038. origin: Australia. collected: November 29, 1985. collector: J.G. Carman. collector id: 1038. locality: In flood plain, N side of Cunningham Highway, 5.6km E of Gooniwindi. remarks: Plants 30-75cm tall, most had dropped seeds. Maturity early. Wild. Seed.
- PI 533230 donor id: 1041. origin: Australia. collected: November 30, 1985. collector: J.G. Carman. collector id: 1041. locality: Near small river, 56km SE of Gooniwindi on W side of Bruxner Highway. remarks: Plants 30-100cm tall. Awns short. Wild. Seed.
- PI 533231 donor id: 1042. origin: Australia. collected: November 30, 1985. collector: J.G. Carman. collector id: 1042. locality: Stream bank, 3.2km N of Bonshaw on E side of Bruxner Highway. remarks: Awns short. Wild. Seed.
- PI 533232 donor id: 1060. origin: Australia. collected: December 01, 1985. collector: J.G. Carman. collector id: 1060. locality: Stream bank adjacent to Spring Creek, 33.2km W of Warialda on S side of Gwydir Highway. remarks: Typical. Awns short. Wild. Seed.

PI 533233 to 533238. *Elymus scabrus* var. *wilpenensis* ined. POACEAE

Donated by: Crane, C.F., Carman, J.G., Department of Plant Science, Utah State University, Logan, Utah, United States. Received February 1988.

- PI 533233 donor id: 1084. origin: Australia. collected: December 06, 1985. collector: J.G. Carman. collector id: 1084. locality: In sliding rock area on south-facing slope near trail, in shade, 1.5km from trailhead parking lot for Wilpena Pound, Flinders Range National Park. remarks: Awns short. Glumes large. Many seeds mature. Wild. Seed.
- PI 533234 donor id: 1086. origin: Australia. collected: December 06, 1985. collector: J.G. Carman. collector id: 1086. locality: In and around Bunyeroo Creek, 12.2km S of Aroona Valley Rd. on E side of Bunyeroo Gorge Rd., Flinders Range National Park. remarks: Awns short. Glumes fairly large. Wild. Seed.

PI 533233 to 533238-continued

- PI 533235 donor id: 1087. origin: Australia. collected: December 06, 1985. collector: J.G. Carman. collector id: 1087. locality: Along banks of Oraparinna Creek, 35.5km S of Blinman on W side of road from Wilpena to Blinman. remarks: Awns short. Glumes moderately large. In cultivation, this form and PI 533236 have leaf pubescence and prostrate habit suggestive of hybridization with *E. rectisetus*. Wild. Seed.
- PI 533236 donor id: 1089. origin: Australia. collected: December 06, 1985. collector: J.G. Carman. collector id: 1089. locality: Near creek bed, S side of road leading to Parachilna, 16.4km W of Blinman. remarks: Awns short. In cultivation, this form and PI 533235 have leaf pubescence and prostrate habit suggestive of hybridization with *E. rectisetus*. Wild. Seed.
- PI 533237 donor id: 1090. origin: Australia. collected: December 06, 1985. collector: J.G. Carman. collector id: 1090. locality: Brachina Gorge Rd., W end of Brachina Gorge about 1 km within Flinders Range National Park, 13.6km E of intersection between Hawker and Parachilna. remarks: Awns short. Wild. Seed.
- PI 533238 donor id: 1092. origin: Australia. collected: December 07, 1985. collector: J.G. Carman. collector id: 1092. locality: Along creek bed and banks, E of Mt. Remarkable Conservation Park trailhead, 6.2km E of Highway 1 between Port Augusta and Port Pirie. remarks: Awns short. Wild. Seed.

PI 533239 to 533452. *Phaseolus vulgaris* L. FABACEAE Garden bean

Donated by: Western Regional Plant Introduction Sta, 59 Johnson Hall, Washington State University, Pullman, Washington, United States. remarks: Accessions from the O. Novell *Phaseolus* collection. G number designations CIAT accession numbers. Received February 13, 1989.

- PI 533239 donor id: CF 397-2-1-4-3. origin: United States. collected: 1972. collector: O. Novell. collector id: CF 397-2-1-4-3. other id: CIAT G09641. locality: Palo Alto. remarks: Pinto type. Cultivated. Seed.
- PI 533240 donor id: CS407-15-2-3. origin: United States. collected: 1972. collector: O. Novell. collector id: CS407-15-2-3. other id: CIAT G09642. locality: Palo Alto. remarks: Seeds red. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533241 donor id: CS442-Bulk. origin: United States. collected: 1972. collector: O. Norvell. collector id: CS442-Bulk. other id: CIAT GO9648. locality: Palo Alto. remarks: Seeds white. Cultivated. Seed.
- PI 533242 donor id: CS445-6. origin: United States. collected: 1972. collector: O. Norvell. collector id: CS445-6. other id: CIAT GO9650. locality: Palo Alto. remarks: Seeds tan. Cultivated. Seed.
- PI 533243 donor id: M7207-4-1-Bulk. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7207-4-1-Bulk. other id: CIAT GO9653. remarks: Seeds yellow. Cultivated. Seed.
- PI 533244 donor id: M7230-B. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7230-B. other id: CIAT GO9654. remarks: Seeds brown. Cultivated. Seed.
- PI 533245 donor id: M7374-6-1-Bulk. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7374-6-1-Bulk. other id: CIAT GO9655. remarks: Seeds yellow. Cultivated. Seed.
- PI 533246 donor id: M7394-B. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7394-B. other id: CIAT GO9655. remarks: Seeds tan. Cultivated. Seed.
- PI 533247 donor id: M7471-5-Bulk. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7471-5-Bulk. other id: CIAT GO9660. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533248 donor id: M7474-5-3. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7474-5-3. other id: CIAT GO9662. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533249 donor id: M7487-3-1-Bulk. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7487-3-1-Bulk. other id: CIAT GO9665. locality: Market la Torre. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533250 donor id: M7486. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7486. other id: CIAT GO9664. locality: Market la Torre. remarks: Seeds black (negro). Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533251 donor id: M7488. origin: Mexico. collected: 1972.
collector: O. Norvell. collector id: M7488. other id:
CIAT G09666. locality: Tlapacoyan. remarks: Seeds black
(negro). Cultivated. Seed.
- PI 533252 donor id: M7490. origin: Mexico. collected: 1972.
collector: O. Norvell. collector id: M7490. other id:
CIAT G09668. locality: Tlapacoyan. remarks: Seeds black
(negro). Cultivated. Seed.
- PI 533253 donor id: M7491. origin: Mexico. collected: 1972.
collector: O. Norvell. collector id: M7491. other id:
CIAT G09669. locality: Tlapacoyan. remarks: Seeds black
(negro). Cultivated. Seed.
- PI 533254 donor id: M7499. origin: Mexico. collected: 1972.
collector: O. Norvell. collector id: M7499. other id:
CIAT G09675. locality: Tlapacoyan. remarks: Seeds black
(negro). Cultivated. Seed.
- PI 533255 donor id: M7518. origin: Mexico. collected: 1972.
collector: O. Norvell. collector id: M7518. other id:
CIAT G09684. locality: Tlapacoyan. remarks: Seeds
yellow. Cultivated. Seed.
- PI 533256 donor id: M7520-3-1-Bulk. origin: Mexico. collected:
1972. collector: O. Norvell. collector id:
M7520-3-1-Bulk. other id: CIAT G09686. locality:
Tlapacoyan. remarks: Seeds yellow. Cultivated. Seed.
- PI 533257 donor id: M7541B-3-2-Bulk. origin: Mexico. collected:
1972. collector: O. Norvell. collector id:
M7541B-3-2-Bulk. other id: CIAT G09695. locality:
Mexico City. remarks: Seeds tan. Cultivated. Seed.
- PI 533258 donor id: M7544-2-1-Bulk. origin: Mexico. local name:
Canario. collected: 1972. collector: O. Norvell.
collector id: M7544-2-1-Bulk. other id: CIAT G09696.
locality: Mexico City. remarks: Seeds yellow.
Cultivated. Seed.
- PI 533259 donor id: M7556. origin: Mexico. collected: 1972.
collector: O. Norvell. collector id: M7556. other id:
CIAT G09700. locality: Mexico City. remarks: Seeds
black (negro). Cultivated. Seed.
- PI 533260 donor id: M7577-1-1-Bulk. origin: Mexico. local name:
Canario. collected: 1972. collector: O. Norvell.
collector id: M7577-1-1-Bulk. other id: CIAT G09701.
locality: Mexico City. remarks: Seeds yellow.
Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533261 donor id: M7557-2-3-Bulk. origin: Mexico. local name: Canario. collected: 1972. collector: O. Norvell. collector id: M7557-2-3-Bulk. other id: CIAT G09702. locality: Mexico City. remarks: Seeds yellow. Cultivated. Seed.
- PI 533262 donor id: M7565. origin: Mexico. local name: Canario. collected: 1972. collector: O. Norvell. collector id: M7565. other id: CIAT G09704. locality: Mexico City. remarks: Seeds yellow. Cultivated. Seed.
- PI 533263 donor id: M7570. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7570. other id: CIAT G09706. locality: Toluca. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533264 donor id: M7575. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7575. other id: CIAT G09708. locality: Toluca. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533265 donor id: M7577. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7577. other id: CIAT G09709. locality: Toluca. remarks: Seeds tan. Cultivated. Seed.
- PI 533266 donor id: M7590. origin: Mexico. local name: Canario. collected: 1972. collector: O. Norvell. collector id: M7590. other id: CIAT G09716. locality: Toluca. remarks: Seeds yellow. Cultivated. Seed.
- PI 533267 donor id: M7593. origin: Mexico. local name: Canario. collected: 1972. collector: O. Norvell. collector id: M7593. other id: CIAT G09718. locality: Toluca. remarks: Seeds yellow. Cultivated. Seed.
- PI 533268 donor id: M7608. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M7608. locality: Toluca. remarks: Seeds tan. Cultivated. Seed.
- PI 533269 donor id: M7617. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7617. other id: CIAT G09733. locality: Iraputo. remarks: Seeds yellow. Cultivated. Seed.
- PI 533270 donor id: M7637. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7637. other id: CIAT G09746. locality: Atotonilo. remarks: Seeds tan. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533271 donor id: M7641. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7641. other id:
CIAT GO9748. locality: Atotonilo. remarks: Seeds tan.
Cultivated. Seed.
- PI 533272 donor id: M7647. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7647. other id:
CIAT GO9752. locality: Atotonilo. remarks: Seeds red.
Cultivated. Seed.
- PI 533273 donor id: M7648. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7648. other id:
CIAT GO9753. locality: Atotonilo. remarks: Seeds dark
brown. Cultivated. Seed.
- PI 533274 donor id: M7658-A. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7658-A. other id:
CIAT GO9760. locality: Jalapa. remarks: Seeds tan.
Cultivated. Seed.
- PI 533275 donor id: M7660. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7660. other id:
CIAT GO9763. locality: Jalapa. remarks: Seeds brown.
C. Verde. Cultivated. Seed.
- PI 533276 donor id: M7670. origin: Mexico. local name: Sequin.
collected: 1973. collector: O. Norvell. collector id:
M7670. other id: CIAT GO9772. locality: Jalapa.
remarks: Seeds brown. Cultivated. Seed.
- PI 533277 donor id: M7671A,B,C,D. origin: Mexico. collected:
1973. collector: O. Norvell. collector id:
M7671A,B,C,D. other id: CIAT GO9773. locality: Jalapa.
remarks: Seeds tan. Cultivated. Seed.
- PI 533278 donor id: M7680. origin: Mexico. local name: Canario.
collected: 1973. collector: O. Norvell. collector id:
M7680. other id: CIAT GO9777. locality: Jalapa.
remarks: Seeds yellow. Cultivated. Seed.
- PI 533279 donor id: M7684. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7684. other id:
CIAT GO9781. locality: Jalapa. remarks: Seeds grey.
Cultivated. Seed.
- PI 533280 donor id: M7685A,B. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7685A,B. other
id: CIAT GO9783. locality: Zacatecas. remarks: Seeds
tan. Chicarro. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533281 donor id: M7694. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7694. other id:
CIAT G09789. locality: Zacatecas. remarks: Seeds red,
pinto type. Cultivated. Seed.
- PI 533282 donor id: M7702. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7702. other id:
CIAT G09794. locality: Zacatecas. remarks: Seeds
yellow. Cultivated. Seed.
- PI 533283 donor id: M7706. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7706. other id:
CIAT G09798. locality: Zacatecas. remarks: Seeds black.
Cultivated. Seed.
- PI 533284 donor id: M7712. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7712. other id:
CIAT G09801. locality: Zacatecas. remarks: Seeds tan
pinto type. Cultivated. Seed.
- PI 533285 donor id: M7720. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7720. other id:
CIAT G09807. locality: Zacatecas. remarks: Seeds brown.
Cultivated. Seed.
- PI 533286 donor id: M7752. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7752. other id:
CIAT G09827. locality: Xahualica. remarks: Seeds
yellow. Cultivated. Seed.
- PI 533287 donor id: M7753. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7753. other id:
CIAT G09828. locality: Xahualica. remarks: Seeds tan.
Chicarro. Cultivated. Seed.
- PI 533288 donor id: M7781. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7781. other id:
CIAT G09830. locality: Mexico City. remarks: Seeds tan.
Cultivated. Seed.
- PI 533289 donor id: E7781. origin: Ecuador. collected: 1974.
collector: O. Norvell. collector id: E7781. other id:
CIAT G09843. locality: Ibarra. remarks: Seeds red pinto
type. Cultivated. Seed.
- PI 533290 donor id: R7907. origin: Ecuador. collected: 1974.
collector: O. Norvell. collector id: E7907. other id:
CIAT G09852. locality: Ibarra. remarks: Seeds mixed.
Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533291 donor id: E7903. origin: Ecuador. collected: 1974.
collector: O. Norvell. collector id: E7903. other id:
CIAT GO9853. locality: Ibarra. remarks: Seeds tan pinto
type. Cultivated. Seed.
- PI 533292 donor id: M7971. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7971. other id:
CIAT GO9865. locality: Puebla. remarks: Seeds black.
Cultivated. Seed.
- PI 533293 donor id: M7972. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7972. other id:
CIAT GO9866. locality: Puebla. remarks: Seeds black
(negro). Cultivated. Seed.
- PI 533294 donor id: M7974. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7974. other id:
CIAT GO9867. locality: Puebla. remarks: Seeds black
(negro). Cultivated. Seed.
- PI 533295 donor id: M7981. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7981. other id:
CIAT GO9874. locality: Puebla. remarks: Seeds tan.
Cultivated. Seed.
- PI 533296 donor id: M7985. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7985. other id:
CIAT GO9877. locality: Puebla. remarks: Seeds black.
Cultivated. Seed.
- PI 533297 donor id: M7987. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7987. other id:
CIAT GO9878. locality: Puebla. remarks: Seeds black.
Cultivated. Seed.
- PI 533298 donor id: M7994. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7994. other id:
CIAT GO9883. locality: Puebla. remarks: Seeds tan.
Cultivated. Seed.
- PI 533299 donor id: M8000. origin: Mexico. collected: 1972.
collector: O. Norvell. collector id: M8000. other id:
CIAT GO9889. locality: Orizala. remarks: Seeds tan,
pinto type. Cultivated. Seed.
- PI 533300 donor id: M8009. origin: Mexico. collected: 1972.
collector: O. Norvell. collector id: M8009. other id:
CIAT GO9895. locality: Orizala. remarks: Seeds red,
pinto type. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533301 donor id: M8019-B. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M8019-B. other id: CIAT GO9898. locality: Orizala. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533302 donor id: M8033A,B. origin: Mexico. collected: 1972. collector: O. Norvell. collector id: M8033A,B. other id: CIAT GO9901. locality: Mendoza. remarks: Seeds mixed. Cultivated. Seed.
- PI 533303 donor id: M8053. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8053. other id: CIAT GO9908. locality: La Ceiba. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533304 donor id: M8054. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8054. other id: CIAT GO9909. locality: La Ceiba. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533305 donor id: M8055. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8055. other id: CIAT GO9910. locality: La Ceiba. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533306 donor id: M8056. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8056. other id: CIAT GO9911. locality: La Ceiba. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533307 donor id: M8064. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8064. other id: CIAT GO9917. locality: La Ceiba. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533308 donor id: M8066. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8066. other id: CIAT GO9918. locality: La Ceiba. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533309 donor id: M8087abcde. origin: Mexico. local name: Cacahuate. collected: 1974. collector: O. Norvell. collector id: M8087abcde. other id: CIAT GO9932. locality: Calvillo. remarks: Seeds tan. Cultivated. Seed.
- PI 533310 donor id: M8094. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M8094. other id: CIAT GO9937. locality: Aposol. remarks: Seeds tan. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533311 donor id: M8104. origin: Mexico. local name: Rosita. collected: 1973. collector: O. Norvell. collector id: M8104. other id: CIAT GO9941. locality: Aposol. remarks: Seeds pink. Cultivated. Seed.
- PI 533312 donor id: M8154. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8154. other id: CIAT GO9955. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533313 donor id: M8164. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8164. other id: CIAT GO9960. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533314 donor id: M8186. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8186. other id: CIAT GO9970. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533315 donor id: M8187. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8187. other id: CIAT GO9971. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533316 donor id: M7493. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7493. other id: CIAT GO9671. locality: Tlapacan. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533317 donor id: M7497-1-1-Bulk. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7497-1-1-Bulk. locality: Tlapacan. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533318 donor id: M7498. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7498. other id: CIAT GO9674. locality: Tlapacan. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533319 donor id: M7510-1-1-Bulk. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7510-1-1-Bulk. other id: CIAT GO9678. locality: Tlapacan. remarks: Seeds tan. Cultivated. Seed.
- PI 533320 donor id: M7514. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7514. other id: CIAT GO9679. locality: Tlapacan. remarks: Seeds tan. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533321 donor id: M7514-1-1-Bulk. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7514-1-1-Bulk. other id: CIAT GO9680. locality: Tlapacan. remarks: Seeds tan. Cultivated. Seed.
- PI 533322 donor id: M7516. origin: Mexico. local name: Canario. collected: 1973. collector: O. Norvell. collector id: M7516. other id: CIAT GO9681. locality: Tlapacan. remarks: Seeds yellow. Cultivated. Seed.
- PI 533323 donor id: M7516-1-1-Bulk. origin: Mexico. local name: Canario. collected: 1973. collector: O. Norvell. collector id: M7516-1-1-Bulk. other id: CIAT GO9682. locality: Tlapacan. remarks: Seeds yellow. Cultivated. Seed.
- PI 533324 donor id: M7517. origin: Mexico. local name: Canario. collected: 1973. collector: O. Norvell. collector id: M7517. other id: CIAT GO9683. locality: Tlapacan. remarks: Seeds yellow. Cultivated. Seed.
- PI 533325 donor id: M7519. origin: Mexico. local name: Canario. collected: 1973. collector: O. Norvell. collector id: M7519. other id: CIAT GO9685. locality: Tlapacan. remarks: Seeds yellow. Cultivated. Seed.
- PI 533326 donor id: M7530. origin: Mexico. local name: Canario. collected: 1973. collector: O. Norvell. collector id: M7530. other id: CIAT GO9690. locality: Altonga. remarks: Seeds yellow. Cultivated. Seed.
- PI 533327 donor id: M7533. origin: Mexico. local name: Canario. collected: 1973. collector: O. Norvell. collector id: M7533. other id: CIAT GO9693. locality: Altonga. remarks: Seeds yellow. Cultivated. Seed.
- PI 533328 donor id: M7541A-2-1-Bulk. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7541A-2-1-Bulk. other id: CIAT GO9692. locality: Altonga. remarks: Seeds tan. Cultivated. Seed.
- PI 533329 donor id: M7581. origin: Mexico. local name: Flor de Mayo. collected: 1974. collector: O. Norvell. collector id: M7581. other id: CIAT GO9712. locality: Toluca. remarks: Seeds brown. Cultivated. Seed.
- PI 533330 donor id: M7585-7-1. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7585-7-1. other id: CIAT GO9714. locality: Toluca. remarks: Seeds tan. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533331 donor id: M7586A,B. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7586A,B. other id: CIAT GO9715. locality: Toluca. remarks: Seeds yellow. Cultivated. Seed.
- PI 533332 donor id: M7592. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7592. other id: CIAT GO9717. locality: Toluca. remarks: Seeds yellow. Cultivated. Seed.
- PI 533333 donor id: M7594. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7594. other id: CIAT GO9719. locality: Toluca. remarks: Seeds yellow. Cultivated. Seed.
- PI 533334 donor id: M7599A,B. origin: Mexico. local name: Flor de Mayo. collected: 1974. collector: O. Norvell. collector id: M7599A,B. other id: CIAT GO9722. locality: Toluca. remarks: Seeds brown. Cultivated. Seed.
- PI 533335 donor id: M7606. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7606. other id: CIAT GO9725. locality: Toluca. remarks: Seeds yellow. Cultivated. Seed.
- PI 533336 donor id: M7608. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7608. other id: CIAT GO9726. locality: Toluca. remarks: Seeds tan. Cultivated. Seed.
- PI 533337 donor id: M7614. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7614. other id: CIAT GO9732. locality: Iraputo. remarks: Seeds yellow. Cultivated. Seed.
- PI 533338 donor id: M7618. origin: Mexico. local name: Cacahuate. collected: 1974. collector: O. Norvell. collector id: M7618. other id: CIAT GO9734. locality: Iraputo. remarks: Seeds brown. Cultivated. Seed.
- PI 533339 donor id: M7620. origin: Mexico. local name: Flor de Mayo. collected: 1974. collector: O. Norvell. collector id: M7620. other id: CIAT GO9736. locality: Iraputo. remarks: Seeds brown. Cultivated. Seed.
- PI 533340 donor id: M7625. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7625. other id: CIAT GO9738. locality: La Predad. remarks: Seeds yellow. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533341 donor id: M7629. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7629. other id: CIAT GO9740. locality: La Predad. remarks: Seeds yellow. Cultivated. Seed.
- PI 533342 donor id: M7630. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7630. other id: CIAT GO9741. locality: Atotonilo. remarks: Seeds yellow. Cultivated. Seed.
- PI 533343 donor id: M7644. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7644. other id: CIAT GO9751. locality: Atotonilo. remarks: Seeds mixed. Cultivated. Seed.
- PI 533344 donor id: M7652. origin: Mexico. local name: Flor de Mayo. collected: 1974. collector: O. Norvell. collector id: M7652. other id: CIAT GO9757. locality: Atotonilo. remarks: Seeds brown. Cultivated. Seed.
- PI 533345 donor id: M7653. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7653. other id: CIAT GO9758. locality: Jalapa. remarks: Seeds mixed. Cultivated. Seed.
- PI 533346 donor id: M7665. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7665. other id: CIAT GO9767. locality: Jalapa. remarks: Seeds tan. Cultivated. Seed.
- PI 533347 donor id: M7667. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7667. other id: CIAT GO9769. locality: Jalapa. remarks: Seeds light brown. Cultivated. Seed.
- PI 533348 donor id: M7669. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7669. other id: CIAT GO9771. locality: Jalapa. remarks: Seeds tan. Barque. Cultivated. Seed.
- PI 533349 donor id: M7677. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7677. other id: CIAT GO9774. locality: Jalapa. remarks: Seeds brown. Canelo. Cultivated. Seed.
- PI 533350 donor id: M7685. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7685. other id: CIAT GO9782. locality: Zacatecas. remarks: Seeds yellow. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533351 donor id: M7710. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7710. other id:
CIAT GO9797. locality: Zacatecas. remarks: Seeds tan.
C. Verde. Cultivated. Seed.
- PI 533352 donor id: M7713. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7713. other id:
CIAT GO9802. locality: Zacatecas. remarks: Seeds tan.
C. Verde. Cultivated. Seed.
- PI 533353 donor id: M7714. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7714. other id:
CIAT GO9803. locality: Zacatecas. remarks: Seeds tan.
C. Verde. Cultivated. Seed.
- PI 533354 donor id: M7726. origin: Mexico. local name: Cacahuate.
collected: 1974. collector: O. Norvell. collector id:
M7726. other id: CIAT GO9812. locality: Zacatecas.
remarks: Seeds, pinto type. Cultivated. Seed.
- PI 533355 donor id: M7729. origin: Mexico. local name: Canario.
collected: 1974. collector: O. Norvell. collector id:
M7729. other id: CIAT GO9813. locality: Zacatecas.
remarks: Seeds yellow. Cultivated. Seed.
- PI 533356 donor id: M7734. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7734. other id:
CIAT GO9817. locality: Zacatecas. remarks: Seeds brown.
Cultivated. Seed.
- PI 533357 donor id: M7739A,B. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7739A,B. other
id: CIAT GO9820. locality: Zacatecas. remarks: Seeds
brown. C. Verde. Cultivated. Seed.
- PI 533358 donor id: M7754. origin: Mexico. local name: Cacahuate.
collected: 1974. collector: O. Norvell. collector id:
M7754. other id: CIAT GO9829. locality: Xahualica.
remarks: Seeds brown. Cultivated. Seed.
- PI 533359 donor id: B7798ABCD. origin: Bolivia. collected: 1975.
collector: O. Norvell. collector id: B7798ABCD. other
id: CIAT GO9832. remarks: Seeds tan. Poroto Nacional.
Cultivated. Seed.
- PI 533360 donor id: B7800. origin: Bolivia. collected: 1975.
collector: O. Norvell. collector id: B7800. other id:
CIAT GO9834. locality: Cochabanda. remarks: Seeds dark
red. Poroto Amarillo. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533361 donor id: E7871. origin: Ecuador. collected: 1974. collector: O. Norvell. collector id: E7871. other id: CIAT G09839. locality: Ibarra. remarks: Seeds red, pinto type. Cultivated. Seed.
- PI 533362 donor id: E7880. origin: Ecuador. collected: 1974. collector: O. Norvell. collector id: E7880. other id: CIAT G09842. locality: Ibarra. remarks: Seeds brown. Cultivated. Seed.
- PI 533363 donor id: E7893. origin: Ecuador. collected: 1974. collector: O. Norvell. collector id: E7893. other id: CIAT G09848. locality: Ibarra. remarks: Seeds, pinto type. Cultivated. Seed.
- PI 533364 donor id: E7934. origin: Ecuador. collected: 1974. collector: O. Norvell. collector id: E7934. other id: CIAT G09854. locality: Guayaquil. remarks: Seeds yellow. Cultivated. Seed.
- PI 533365 donor id: E7955. origin: Ecuador. collected: 1974. collector: O. Norvell. collector id: E7955. other id: CIAT G09857. locality: Guayaquil. remarks: Seeds white. Cultivated. Seed.
- PI 533366 donor id: M7978. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7978. other id: CIAT G09870. locality: Mexico City. remarks: Seeds black. Abolado. Cultivated. Seed.
- PI 533367 donor id: M7997-Bulk. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7997-Bulk. other id: CIAT G09886. locality: Mexico City. remarks: Seeds mixed. Revuelto. Cultivated. Seed.
- PI 533368 donor id: M8013. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M8013. other id: CIAT G09896. locality: Plancie. remarks: Seeds mixed. Pastillo. Cultivated. Seed.
- PI 533369 donor id: HM8030. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: HM8030. other id: CIAT G09990. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533370 donor id: M8043. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M8043. other id: CIAT G09905. locality: Mendoza. remarks: Seeds black (negro). Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533371 donor id: M8048. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8048. other id:
CIAT GO9907. locality: Mendoza. remarks: Seeds black
(negro). Cultivated. Seed.
- PI 533372 donor id: M8061. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8061. other id:
CIAT GO9914. locality: Villa Juarez. remarks: Seeds
black. Negro Costeno. Cultivated. Seed.
- PI 533373 donor id: M8072. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8072. other id:
CIAT GO9920. locality: Villa Juarez. remarks: Seeds
black. Negro Costeno. Cultivated. Seed.
- PI 533374 donor id: M8101. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8101. other id:
CIAT GO9939. locality: Villa Juarez. remarks: Seeds
mixed. Revuelto. Cultivated. Seed.
- PI 533375 donor id: M8103. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8103. other id:
CIAT GO9940. locality: Villa Juarez. remarks: Seeds
tan. Cultivated. Seed.
- PI 533376 donor id: M8147. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8147. other id:
CIAT GO9952. locality: Villa Juarez. remarks: Seeds
black (negro). Cultivated. Seed.
- PI 533377 donor id: M8156. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8156. other id:
CIAT GO9956. locality: Villa Juarez. remarks: Seeds
black (negro). Cultivated. Seed.
- PI 533378 donor id: M8165. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8165. other id:
CIAT GO9961. locality: Villa Juarez. remarks: Seeds
black (negro). Cultivated. Seed.
- PI 533379 donor id: M8175A,B. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8175A,B. other
id: CIAT GO9966. locality: Villa Juarez. remarks: Seeds
black (negro). Cultivated. Seed.
- PI 533380 donor id: M8183. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8183. other id:
CIAT GO9968. locality: Villa Juarez. remarks: Seeds
black (negro). Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533381 donor id: M8184. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M8184. other id: CIAT GO9969. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533382 donor id: X28-3-20-4. origin: United States. collected: 1975. collector: O. Norvell. collector id: X28-3-20-4. other id: CIAT GO9984. locality: Palo Alto. remarks: Seeds mixed. Cultivated. Seed.
- PI 533383 donor id: X28-3-66. origin: United States. collected: 1975. collector: O. Norvell. collector id: X28-3-66. other id: CIAT GO9986. locality: Palo Alto. remarks: Seeds tan. Cultivated. Seed.
- PI 533384 donor id: X35-3-110-7-30. origin: United States. collected: 1975. collector: O. Norvell. collector id: X35-3-110-7-30. other id: CIAT GO9987. locality: Palo Alto. remarks: Seeds mixed. Cultivated. Seed.
- PI 533385 donor id: M7384-9-1. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7384-9-1. other id: CIAT G11913. remarks: Seeds tan. Cultivated. Seed.
- PI 533386 donor id: M7560. origin: Mexico. local name: Cacahuate. collected: 1975. collector: O. Norvell. collector id: M7560. other id: CIAT G11935. remarks: Seeds brown. Cultivated. Seed.
- PI 533387 donor id: M7533. origin: Mexico. local name: Flor de Mayo. collected: 1975. collector: O. Norvell. collector id: M7533. other id: CIAT G11947. remarks: Seeds brown. Cultivated. Seed.
- PI 533388 donor id: M7572. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7572. other id: CIAT G11956. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533389 donor id: M7589. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7589. other id: CIAT G11958. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533390 donor id: M7596. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7596. other id: CIAT G11960. locality: Toluca. remarks: Seeds tan. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533391 donor id: M7611. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7611. other id: CIAT G11976. locality: Iraputo. remarks: Seeds yellow. Cultivated. Seed.
- PI 533392 donor id: M7614. origin: Mexico. local name: Canario. collected: 1973. collector: O. Norvell. collector id: M7614. other id: CIAT G11977. locality: Iraputo. remarks: Seeds yellow. Cultivated. Seed.
- PI 533393 donor id: M7707. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7707. other id: CIAT G11997. locality: Zacatecas. remarks: Seeds brown. C. Verde. Cultivated. Seed.
- PI 533394 donor id: M8043. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8043. other id: CIAT G12012. locality: Mendoza. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533395 donor id: CS455-6-1. origin: United States. collected: 1974. collector: O. Norvell. collector id: CS455-6-1. other id: CIAT G12020. remarks: Seeds tan. Cultivated. Seed.
- PI 533396 donor id: M7207. origin: Mexico. local name: Canario. collected: 1973. collector: O. Norvell. collector id: M7207. other id: CIAT G12740. remarks: Seeds yellow. Cultivated. Seed.
- PI 533397 donor id: M7207A-4-1-Bulk. origin: Mexico. local name: Canario. collected: 1974. collector: O. Norvell. collector id: M7207A-4-1-Bulk. other id: CIAT G12741. remarks: Seeds yellow. Cultivated. Seed.
- PI 533398 donor id: M7323. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7323. other id: CIAT G12742. remarks: Seeds tan. Cultivated. Seed.
- PI 533399 donor id: M7450. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7450. other id: CIAT G12750. locality: Poza Rica. remarks: Seeds pink. Cultivated. Seed.
- PI 533400 donor id: M7495-3-1-6. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7495-3-1-6. other id: CIAT G12756. locality: Tlapacoyan. remarks: Seeds black (negro). Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533401 donor id: M7574. origin: Mexico. local name: Cacahuate. collected: 1974. collector: O. Norvell. collector id: M7574. other id: CIAT G12772. locality: Tolucaoyan. remarks: Seeds brown. Cultivated. Seed.
- PI 533402 donor id: M7593. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7593. other id: CIAT G12780. locality: Tlapacoyan. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533403 donor id: M7612-3-1-Bulk. origin: Mexico. local name: Cacahuate. collected: 1974. collector: O. Norvell. collector id: M7612-3-1-Bulk. other id: CIAT G12788. locality: Iraputo. remarks: Seeds brown. Cultivated. Seed.
- PI 533404 donor id: M7617-B. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7617-B. other id: CIAT G12792. locality: Iraputo. remarks: Seeds brown. C. Verde. Cultivated. Seed.
- PI 533405 donor id: M7642. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M7642. other id: CIAT G12798. remarks: Seeds brown. C. Verde. Cultivated. Seed.
- PI 533406 donor id: M8174. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8174. other id: CIAT G12807. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533407 donor id: M8212-2-Bulk. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8212-2-Bulk. other id: CIAT G12811. locality: Villa Union. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533408 donor id: M7510. origin: Mexico. collected: 1978. collector: O. Norvell. collector id: M7510. locality: Tlapacoyan. remarks: Seeds tan. Cultivated. Seed.
- PI 533409 donor id: M7635. origin: Mexico. local name: Flor de Mayo. collected: 1973. collector: O. Norvell. collector id: M7635. locality: Atotonilo. remarks: Seeds brown. Cultivated. Seed.
- PI 533410 donor id: M6740. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M6740. locality: Atotonilo. remarks: Seeds mixed. Cultivated. Seed.
- PI 533411 donor id: M7690-B. origin: Mexico. collected: 1973. collector: O. Norvell. collector id: M7690-B. remarks: Seeds black. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533412 donor id: M7724. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M7724. locality:
Zacatecas. remarks: Seeds yellow. Cultivated. Seed.
- PI 533413 donor id: M7736. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M7736. locality:
Zacatecas. remarks: Seeds yellow. Cultivated. Seed.
- PI 533414 donor id: M7748. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M7748. locality:
Xahualica. remarks: Seeds tan. Cultivated. Seed.
- PI 533415 donor id: M7996. origin: Mexico. collector: O. Norvell.
collector id: M7996. remarks: Seeds yellow. Cultivated.
Seed.
- PI 533416 donor id: M7998A,B,C. origin: Mexico. collector: O.
Norvell. collector id: M7998A,B,C. remarks: Seeds
mixed. Cultivated. Seed.
- PI 533417 donor id: M7979-D-1. origin: Mexico. collector: O.
Norvell. collector id: M7979-D-1. remarks: Seeds, pinto
type. Cultivated. Seed.
- PI 533418 donor id: M8002. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8002. locality:
Orizala. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533419 donor id: M8005. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8005. locality:
Orizala. remarks: Seeds tan, pinto type. Cultivated.
Seed.
- PI 533420 donor id: M8005-1. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8005-1. locality:
Orizala. remarks: Seeds tan, pinto type. Cultivated.
Seed.
- PI 533421 donor id: M8026-14. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8026-14.
locality: Orizala. remarks: Seeds light brown.
Cultivated. Seed.
- PI 533422 donor id: M8034. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8034. locality:
Orizala. remarks: Seeds black (negro). Cultivated.
Seed.

PI 533239 to 533452-continued

- PI 533423 donor id: M8038. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8038. locality:
Mendoza. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533424 donor id: M8046-1. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8046-1. remarks:
Seeds black (negro). Cultivated. Seed.
- PI 533425 donor id: M8057. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8057. locality:
La Ceiba. remarks: Seeds tan. Cultivated. Seed.
- PI 533426 donor id: M8070. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8070. locality:
Villa Juarez. remarks: Seeds tan. Cultivated. Seed.
- PI 533427 donor id: M8078-A,B. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8078-A,B.
locality: Villa Juarez. remarks: Seeds tan. Cultivated.
Seed.
- PI 533428 donor id: M8083-Bulk. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8083-Bulk.
locality: Villa Juarez. remarks: Seeds tan. Cultivated.
Seed.
- PI 533429 donor id: M8085. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8085. locality:
Villa Juarez. remarks: Seeds tan. Cultivated. Seed.
- PI 533430 donor id: M8086. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8086. locality:
Villa Juarez. remarks: Seeds tan. Cultivated. Seed.
- PI 533431 donor id: M8089-4. origin: Mexico. collector: O.
Norvell. collector id: M8089-4. remarks: Seeds dark
red. Cultivated. Seed.
- PI 533432 donor id: M8100. origin: Mexico. collector: O. Norvell.
collector id: M8100. remarks: Seeds light brown.
Cultivated. Seed.
- PI 533433 donor id: M8139. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8139. locality:
Villa Juarez. remarks: Seeds tan. Cultivated. Seed.
- PI 533434 donor id: M8139-1. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M8139-1. locality:
Villa Juarez. remarks: Seeds tan. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533435 donor id: M8139-2-Bulk. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8139-2-Bulk. locality: Villa Juarez. remarks: Seeds tan. Cultivated. Seed.
- PI 533436 donor id: M8144-2. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8144-2. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533437 donor id: M8146-1. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8146-1. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533438 donor id: M8192. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8192. locality: Villa Juarez. remarks: Seeds tan, pinto type. Cultivated. Seed.
- PI 533439 donor id: M8157. origin: Mexico. collected: 1974. collector: O. Norvell. collector id: M8157. locality: Villa Juarez. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533440 donor id: M8400. origin: Mexico. local name: Blanquito. collected: 1973. collector: O. Norvell. collector id: M8400. locality: Tepatillan. remarks: Seeds white. Cultivated. Seed.
- PI 533441 donor id: CS432-Bush. origin: United States. collected: 1975. collector: O. Norvell. collector id: CS432-Bush. locality: Palo Alto. remarks: Seeds white. Cultivated. Seed.
- PI 533442 donor id: CS432-13. origin: United States. collected: 1975. collector: O. Norvell. collector id: CS432-13. locality: Palo Alto. remarks: Seeds white. Cultivated. Seed.
- PI 533443 donor id: CS446-18. origin: United States. collected: 1975. collector: O. Norvell. collector id: CS446-18. locality: Palo Alto. remarks: Seeds white. Cultivated. Seed.
- PI 533444 donor id: CS455-6-Bulk. origin: United States. collected: 1975. collector: O. Norvell. collector id: CS455-6-Bulk. locality: Palo Alto. remarks: Seeds brown. Cultivated. Seed.

PI 533239 to 533452-continued

- PI 533445 donor id: CS455-10-2. origin: United States. collected: 1975. collector: O. Norvell. collector id: CS455-10-2. locality: Palo Alto. remarks: Seeds brown. Cultivated. Seed.
- PI 533446 donor id: E7897A,B,C. origin: Ecuador. collected: 1974. collector: O. Norvell. collector id: E7897A,B,C. locality: Ibarra. remarks: Seeds pinto type. Cultivated. Seed.
- PI 533447 donor id: E7904. origin: Ecuador. collected: 1974. collector: O. Norvell. collector id: E7904. locality: Ibarra. remarks: Seeds black. Cultivated. Seed.
- PI 533448 donor id: B7798-E-1-2. origin: Bolivia. collected: 1974. collector: O. Norvell. collector id: B7798-E-1-2. remarks: Seeds white. Cultivated. Seed.
- PI 533449 donor id: X56-2-4-27-10-7. origin: United States. collector: O. Norvell. collector id: X56-2-4-27-10-7. locality: Palo Alto. remarks: Seeds black. Cultivated. Seed.
- PI 533450 donor id: X56-2-49-23-11. origin: United States. collector: O. Norvell. collector id: X56-2-49-23-11. locality: Palo Alto. remarks: Seeds mixed. Cultivated. Seed.
- PI 533451 donor id: X35-3-110-25-1. origin: United States. collector: O. Norvell. collector id: X35-3-110-25-1. locality: Palo Alto. remarks: Seeds mixed. Cultivated. Seed.
- PI 533452 donor id: 845-1-6-9-7. origin: United States. collector: O. Norvell. collector id: 845-1-6-9-7. locality: Palo Alto. remarks: Seeds mixed. Cultivated. Seed.

PI 533453 to 533455. Phaseolus acutifolius A. Gray FABACEAE Tepary bean

Donated by: Western Regional Plant Introduction Sta, 59 Johnson Hall, Washington State University, Pullman, Washington, United States. remarks: Accessions from the O. Norvell Phaselous collection. Received March 20, 1989.

- PI 533453 donor id: M9600. origin: Mexico. collected: 1981. collector: O. Norvell. collector id: M9600. locality: Huxtla. remarks: Seeds mixed. Frijol Escumite. Cultivated. Seed.

PI 533453 to 533455-continued

PI 533454 donor id: M9601. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9601. locality:
Huxtla. remarks: Seeds mixed. Frijol Escumite.
Cultivated. Seed.

PI 533455 donor id: M9602. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9602. locality:
Huxtla. remarks: Seeds mixed. Frijol Escumite.
Cultivated. Seed.

PI 533456 to 533590. *Phaseolus vulgaris* L. FABACEAE Garden bean

Donated by: Western Regional Plant Introduction Sta, 59 Johnson
Hall, Washington State University, Pullman, Washington, United
States. remarks: Accessions from the O. Norvell Phaselous
collection. Received March 20, 1989.

PI 533456 donor id: M7166-3-Bulk. origin: Mexico. collected:
1973. collector: O. Norvell. collector id:
M7166-3-Bulk. remarks: Seeds tan. C. Verde. Cultivated.
Seed.

PI 533457 donor id: M7336A-1-1. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7336A-1-1.
locality: Ahuyula. remarks: Seeds black. Cultivated.
Seed.

PI 533458 donor id: M7387. origin: Mexico. collected: 1973.
collector: O. Norvell. collector id: M7387. locality:
Nochislor. remarks: Seeds mixed. Azufrado. Cultivated.
Seed.

PI 533459 donor id: M7434-4-1-Bulk. origin: Mexico. collected:
1973. collector: O. Norvell. collector id:
M7434-4-1-Bulk. locality: Ameca. remarks: Seeds tan. C.
Verde. Cultivated. Seed.

PI 533460 donor id: M7448C-3-1-14. origin: Mexico. collected:
1974. collector: O. Norvell. collector id:
M7448C-3-1-14. locality: Poza Rica. remarks: Seeds
black (negro). Cultivated. Seed.

PI 533461 donor id: M7450-8-1. origin: Mexico. collected: 1974.
collector: O. Norvell. collector id: M7450-8-1.
locality: Poza Rica. remarks: Seeds mixed. Cultivated.
Seed.

PI 533462 donor id: M7497-1-1. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M7497-1-1.
locality: Tlapacoyan. remarks: Seeds black (negro).
Cultivated. Seed.

PI 533456 to 533590-continued

- PI 533463 donor id: M7586-B. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7586-B. locality: Toluca. remarks: Seeds white. Cultivated. Seed.
- PI 533464 donor id: M7685-C-5. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7685-C-5. locality: Zacatecas. remarks: Seeds mixed. Chicarro. Cultivated. Seed.
- PI 533465 donor id: M7705B-Bulk. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7705B-Bulk. locality: Zacatecas. remarks: Seeds tan. C. Verde. Cultivated. Seed.
- PI 533466 donor id: M7710-6. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7710-6. locality: Zacatecas. remarks: Seeds mixed. C. Verde. Cultivated. Seed.
- PI 533467 donor id: M7739-B-4. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7739-B-4. locality: Zacatecas. remarks: Seeds mixed. C. Verde. Cultivated. Seed.
- PI 533468 donor id: M7746. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M7746. locality: Xahualica. remarks: Seeds black. Cultivated. Seed.
- PI 533469 donor id: M8017A-Bulk. origin: Mexico. local name: Aluvia. collected: 1975. collector: O. Norvell. collector id: M8017A-Bulk. locality: Orizala. remarks: Seeds white. Cultivated. Seed.
- PI 533470 donor id: M8018. origin: Mexico. local name: Aluvia. collected: 1975. collector: O. Norvell. collector id: M8018. locality: Orizala. remarks: Seeds white. Cultivated. Seed.
- PI 533471 donor id: M8029-8-Bulk. origin: Mexico. local name: Seguin. collected: 1975. collector: O. Norvell. collector id: M8029-8-Bulk. locality: Orizala. remarks: Seeds tan. Cultivated. Seed.
- PI 533472 donor id: M8078C-1-Bulk. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M8078C-1-Bulk. locality: Villa Juarez. remarks: Seeds tan. Cultivated. Seed.
- PI 533473 donor id: M8079A,B. origin: Mexico. collected: 1975. collector: O. Norvell. collector id: M8079A,B. locality: Villa Juarez. remarks: Seeds white. Cultivated. Seed.

PI 533456 to 533590-continued

- PI 533474 donor id: M8169A. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8169A. locality:
Villa Juarez. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533475 donor id: M8169B-1. origin: Mexico. collected: 1975.
collector: O. Norvell. collector id: M8169B-1.
locality: Villa Juarez. remarks: Seeds black (negro).
Cultivated. Seed.
- PI 533476 donor id: M8207-1-Bulk. origin: Mexico. collected:
1975. collector: O. Norvell. collector id:
M8207-1-Bulk. locality: Villa Union. remarks: Seeds
black (negro). Cultivated. Seed.
- PI 533477 donor id: M8416. origin: Mexico. collected: 1976.
collector: O. Norvell. collector id: M8416. locality:
Mexico City. remarks: Seeds tan. Chicarro. Cultivated.
Seed.
- PI 533478 donor id: M9500A,B. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9500A,B.
locality: El Tuito. remarks: Seeds tan. Cultivated.
Seed.
- PI 533479 donor id: M9501. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9501. locality:
El Tuito. remarks: Seeds black. Cultivated. Seed.
- PI 533480 donor id: M9504. origin: Mexico. local name: Canario.
collected: 1980. collector: O. Norvell. collector id:
M9504. locality: Altatonga. remarks: Seeds light brown.
Cultivated. Seed.
- PI 533481 donor id: M9506A-Bulk. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9506A-Bulk.
locality: Altatonga. remarks: Seeds yellow. Cultivated.
Seed.
- PI 533482 donor id: M9508. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9508. locality:
Altatonga. remarks: Seeds black. Cultivated. Seed.
- PI 533483 donor id: M9509. origin: Mexico. local name: Canario.
collected: 1980. collector: O. Norvell. collector id:
M9509. locality: Altatonga. remarks: Seeds yellow.
Cultivated. Seed.
- PI 533484 donor id: M9510A,B. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9510A,B.
locality: Altatonga. remarks: Seeds black. Cultivated.
Seed.

PI 533456 to 533590-continued

- PI 533485 donor id: M9511A,B,C. origin: Mexico. collected: 1980. collector: O. Norvell. collector id: M9511A,B,C. locality: Altatonga. remarks: Seeds light brown. Cultivated. Seed.
- PI 533486 donor id: M9513. origin: Mexico. collected: 1980. collector: O. Norvell. collector id: M9513. locality: Altatonga. remarks: Seeds pink. Alberjon. Cultivated. Seed.
- PI 533487 donor id: M9514. origin: Mexico. collected: 1980. collector: O. Norvell. collector id: M9514. locality: Altatonga. remarks: Seeds pink. Alberjon. Cultivated. Seed.
- PI 533488 donor id: M9516. origin: Mexico. local name: Flor de Mayo. collected: 1980. collector: O. Norvell. collector id: M9516. locality: Tezuitlan. remarks: Seeds pink. Cultivated. Seed.
- PI 533489 donor id: M9517. origin: Mexico. local name: Canario. collected: 1980. collector: O. Norvell. collector id: M9517. locality: Tezuitlan. remarks: Seeds yellow. Cultivated. Seed.
- PI 533490 donor id: M9518. origin: Mexico. local name: Vallo. collected: 1980. collector: O. Norvell. collector id: M9518. locality: Tezuitlan. remarks: Seeds tan. Cultivated. Seed.
- PI 533491 donor id: M9519. origin: Mexico. collected: 1980. collector: O. Norvell. collector id: M9519. locality: Tezuitlan. remarks: Seeds white. Blanca Aluvia. Cultivated. Seed.
- PI 533492 donor id: M9520. origin: Mexico. local name: Vallo. collected: 1980. collector: O. Norvell. collector id: M9520. locality: Tezuitlan. remarks: Seeds tan. Cultivated. Seed.
- PI 533493 donor id: M9524. origin: Mexico. collected: 1980. collector: O. Norvell. collector id: M9524. locality: Tezuitlan. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533494 donor id: M9525. origin: Mexico. local name: Canario. collected: 1980. collector: O. Norvell. collector id: M9525. locality: Tezuitlan. remarks: Seeds yellow. Cultivated. Seed.

PI 533456 to 533590-continued

- PI 533495 donor id: M9526. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9526. locality:
Tezuitlan. remarks: Seeds yellow (amarillo).
Cultivated. Seed.
- PI 533496 donor id: M9527. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9527. locality:
Tuxtla. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533497 donor id: M9533. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9533. locality:
Tuxtla. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533498 donor id: M9534. origin: Mexico. local name: Flor de
Mayo. collected: 1980. collector: O. Norvell.
collector id: M9534. locality: Tuxtla. remarks: Seeds
white. Cultivated. Seed.
- PI 533499 donor id: M9535. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9535. locality:
Tuxtla. remarks: Seeds red (rojo). Cultivated. Seed.
- PI 533500 donor id: M9536A,B. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9536A,B.
locality: Tuxtla. remarks: Seeds brown. Cultivated.
Seed.
- PI 533501 donor id: M9537. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9537. locality:
Tuxtla. remarks: Seeds red (rojo). Cultivated. Seed.
- PI 533502 donor id: M9538. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9538. locality:
Tuxtla. remarks: Seeds dark brown. Cultivated. Seed.
- PI 533503 donor id: M9539. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9539. locality:
Chiapa de Corzo. remarks: Seeds white. Blanca Mediano.
Cultivated. Seed.
- PI 533504 donor id: M9542. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9542. locality:
Chiapa de Corzo. remarks: Seeds black (negro).
Cultivated. Seed.
- PI 533505 donor id: M9543. origin: Mexico. collected: 1980.
collector: O. Norvell. collector id: M9543. locality:
Chiapa de Corzo. remarks: Seeds red (rojo). Cultivated.
Seed.

PI 533456 to 533590-continued

- PI 533506 donor id: M9547. origin: Mexico. local name: Canario. collected: 1981. collector: O. Norvell. collector id: M9547. locality: Oaxaca. remarks: Seeds yellow. Cultivated. Seed.
- PI 533507 donor id: M9548. origin: Mexico. collected: 1981. collector: O. Norvell. collector id: M9548. locality: Oaxaca. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533508 donor id: M9549. origin: Mexico. collected: 1981. collector: O. Norvell. collector id: M9549. locality: Oaxaca. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533509 donor id: M9550. origin: Mexico. collected: 1981. collector: O. Norvell. collector id: M9550. locality: Oaxaca. remarks: Seeds white. Blanco Delgado. Cultivated. Seed.
- PI 533510 donor id: M9551. origin: Mexico. local name: Cacahuate. collected: 1981. collector: O. Norvell. collector id: M9551. locality: Oaxaca. remarks: Seeds pink. Cultivated. Seed.
- PI 533511 donor id: M9554. origin: Mexico. local name: Flor de Mayo. collected: 1981. collector: O. Norvell. collector id: M9554. locality: Oaxaca. remarks: Seeds pink. Cultivated. Seed.
- PI 533512 donor id: M9555. origin: Mexico. collected: 1981. collector: O. Norvell. collector id: M9555. locality: Oaxaca. remarks: Seeds yellow (amarillo). Cultivated. Seed.
- PI 533513 donor id: M9556. origin: Mexico. collected: 1981. collector: O. Norvell. collector id: M9556. locality: Oaxaca. remarks: Seeds red. Rojo Mediano. Cultivated. Seed.
- PI 533514 donor id: M9558. origin: Mexico. collected: 1981. collector: O. Norvell. collector id: M9558. locality: Oaxaca. remarks: Seeds yellow. Chicarro. Cultivated. Seed.
- PI 533515 donor id: M9560. origin: Mexico. local name: Rayado. collected: 1981. collector: O. Norvell. collector id: M9560. locality: Oaxaca. remarks: Seeds tan pinto type. Cultivated. Seed.

PI 533456 to 533590-continued

- PI 533516 donor id: M9561. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9561. locality:
Oaxaca. remarks: Seeds red (rojo). Cultivated. Seed.
- PI 533517 donor id: M9564. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9564. locality:
Oaxaca. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533518 donor id: M9566. origin: Mexico. local name: Champaico.
collected: 1981. collector: O. Norvell. collector id:
M9566. locality: Oaxaca. remarks: Seeds black.
Cultivated. Seed.
- PI 533519 donor id: M9571. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9571. locality:
Oaxaca. remarks: Seeds red. Cultivated. Seed.
- PI 533520 donor id: M9572. origin: Mexico. local name: Canario.
collected: 1981. collector: O. Norvell. collector id:
M9572. locality: Oaxaca. remarks: Seeds yellow.
Cultivated. Seed.
- PI 533521 donor id: M9574. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9574. locality:
Oaxaca. remarks: Seeds red. Rojo Roudondo. Cultivated.
Seed.
- PI 533522 donor id: M9584. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9584. locality:
Mitla. remarks: Seeds brown. Mediano. Cultivated.
Seed.
- PI 533523 donor id: M9585. origin: Mexico. local name: Vallo.
collected: 1981. collector: O. Norvell. collector id:
M9585. locality: Mitla. remarks: Seeds brown.
Cultivated. Seed.
- PI 533524 donor id: M9586. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9586. locality:
Mitla. remarks: Seeds black. Delgado Negro.
Cultivated. Seed.
- PI 533525 donor id: M9589. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9589. locality:
Huachinango. remarks: Seeds black. Negro Chico.
Cultivated. Seed.
- PI 533526 donor id: M9590. origin: Mexico. local name: Cacahuate.
collected: 1981. collector: O. Norvell. collector id:
M9590. locality: Huachinango. remarks: Seeds tan, pinto
type. Cultivated. Seed.

PI 533456 to 533590-continued

- PI 533527 donor id: M9591. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9591. locality:
Huachinango. remarks: Seeds yellow (amarillo).
Cultivated. Seed.
- PI 533528 donor id: M9593. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9593. locality:
Huachinango. remarks: Seeds tan, pinto type.
Cultivated. Seed.
- PI 533529 donor id: M9604. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9604. locality:
Huxtla. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533530 donor id: M9606. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9606. locality:
Huxtla. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533531 donor id: M9610. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9610. locality:
Tapachula. remarks: Seeds yellow. Cultivated. Seed.
- PI 533532 donor id: M9612. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9612. locality:
Tapachula. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533533 donor id: M9613. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9613. locality:
Tapachula. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533534 donor id: M9614. origin: Mexico. collected: 1981.
collector: O. Norvell. collector id: M9614. locality:
Tapachula. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533535 donor id: G9731. origin: Guatemala. local name: Aluvia.
collected: 1982. collector: O. Norvell. collector id:
G9731. locality: Salama. remarks: Seeds white.
Cultivated. Seed.
- PI 533536 donor id: G9732. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9732. locality:
Guatemala City. remarks: Seeds black (negro).
Cultivated. Seed.
- PI 533537 donor id: G9734. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9734. locality:
Zacapa. remarks: Seeds red (rojo). Cultivated. Seed.

PI 533456 to 533590-continued

- PI 533538 donor id: G9797. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9797. locality: Zacapa. remarks: Seeds black (negro). Cultivated. Seed.
- PI 533539 donor id: G9798. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9798. locality: Coban. remarks: Seeds white (blanco). Cultivated. Seed.
- PI 533540 donor id: G9799. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9799. locality: Coban. remarks: Seeds purple. Cultivated. Seed.
- PI 533541 donor id: G9828. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9828. locality: Malactan. remarks: Seeds white (blanco). Cultivated. Seed.
- PI 533542 donor id: G9835. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9835. locality: San Pablo. remarks: Seeds white (blanco). Cultivated. Seed.
- PI 533543 donor id: G9836. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9836. locality: San Pablo. remarks: Seeds white (blanco). Cultivated. Seed.
- PI 533544 donor id: G9846. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9846. locality: San Pablo. remarks: Seeds white (blanco). Cultivated. Seed.
- PI 533545 donor id: G9850. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9850. locality: Quezatepeque. remarks: Seeds dark brown. Frijol de Cafe. Cultivated. Seed.
- PI 533546 donor id: G9853. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9853. locality: Quezatepeque. remarks: Seeds red (rojo). Cultivated. Seed.
- PI 533547 donor id: G9854. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9854. locality: Quezatepeque. remarks: Seeds brown. Cultivated. Seed.
- PI 533548 donor id: G9861. origin: Guatemala. collected: 1982. collector: O. Norvell. collector id: G9861. locality: Quezatepeque. remarks: Seeds black (negro). Cultivated. Seed.

PI 533456 to 533590-continued

- PI 533549 donor id: G9862. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9862. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533550 donor id: G9863. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9863. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533551 donor id: G9864. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9864. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533552 donor id: G9865. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9865. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533553 donor id: G9866. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9866. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533554 donor id: G9867. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9867. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533555 donor id: G9868. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9868. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533556 donor id: G9869. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9869. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533557 donor id: G9871. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9871. locality:
Quezatepeque. remarks: Seeds white (blanco).
Cultivated. Seed.
- PI 533558 donor id: G9872. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9872. locality:
Quezatepeque. remarks: Seeds red (rojo). Cultivated.
Seed.

PI 533456 to 533590-continued

- PI 533559 donor id: G9873. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9873. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533560 donor id: G9875. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9875. locality:
Quezatepeque. remarks: Seeds white (blanco).
Cultivated. Seed.
- PI 533561 donor id: G9877. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9877. locality:
Quezatepeque. remarks: Seeds red (rojo). Cultivated.
Seed.
- PI 533562 donor id: G9878. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9878. locality:
Quezatepeque. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533563 donor id: G9879. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9879. locality:
Quezatepeque. remarks: Seeds red (rojo). Cultivated.
Seed.
- PI 533564 donor id: G9827. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9827. locality:
Malactan. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533565 donor id: G9829. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9829. locality:
Malactan. remarks: Seeds red. Bolenario Rojo.
Cultivated. Seed.
- PI 533566 donor id: G9830. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9830. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533567 donor id: G9839. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9839. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533568 donor id: G9840. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9840. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.

PI 533456 to 533590-continued

- PI 533569 donor id: G9841. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9841. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533570 donor id: G9842. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9842. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533571 donor id: G9843. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9843. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533572 donor id: G9844. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9844. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533573 donor id: G9845. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9845. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533574 donor id: G9856. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9856. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533575 donor id: G9857. origin: Guatemala. collected: 1982.
collector: O. Norvell. collector id: G9857. locality:
San Pablo. remarks: Seeds black (negro). Cultivated.
Seed.
- PI 533576 donor id: P7787. origin: Peru. collected: 1974.
collector: O. Norvell. collector id: P7787. locality:
Lima. remarks: Seeds white. Cultivated. Seed.
- PI 533577 donor id: E7877-A-18. origin: Ecuador. collected: 1976.
collector: O. Norvell. collector id: E7877-A-18.
locality: Ibarra. remarks: Seeds mixed. Cultivated.
Seed.
- PI 533578 donor id: E7877-A-22. origin: Ecuador. collected: 1976.
collector: O. Norvell. collector id: E7877-A-22.
locality: Ibarra. remarks: Seeds white. Cultivated.
Seed.
- PI 533579 donor id: E7883A. origin: Ecuador. collected: 1976.
collector: O. Norvell. collector id: E7883A. locality:
Ibarra. remarks: Seeds black. Cultivated. Seed.

PI 533456 to 533590-continued

- PI 533580 donor id: E7883B. origin: Ecuador. collected: 1976.
collector: O. Norvell. collector id: E7883B. locality:
Ibarra. remarks: Seeds black. Cultivated. Seed.
- PI 533581 donor id: E7883C. origin: Ecuador. collected: 1976.
collector: O. Norvell. collector id: E7883C. locality:
Ibarra. remarks: Seeds black. Cultivated. Seed.
- PI 533582 donor id: E7923A-7-10. origin: Ecuador. collected:
1976. collector: O. Norvell. collector id: E7923A-7-10.
locality: Quito. remarks: Seeds white. Cultivated.
Seed.
- PI 533583 donor id: E7923A-7-10-20. origin: Ecuador. collected:
1976. collector: O. Norvell. collector id:
E7923A-7-10-20. locality: Quito. remarks: Seeds white.
Cultivated. Seed.
- PI 533584 donor id: E7934-1. origin: Ecuador. collected: 1976.
collector: O. Norvell. collector id: E7934-1. locality:
Guayaquil. remarks: Seeds mixed. Cultivated. Seed.
- PI 533585 donor id: E8521. origin: Ecuador. collected: 1976.
collector: O. Norvell. collector id: E8521. locality:
Tulcan. remarks: Seeds red. Cultivated. Seed.
- PI 533586 donor id: X31-4-17-4-Bulk. origin: United States.
collected: 1981. collector: O. Norvell. collector id:
X31-4-17-4-Bulk. locality: Palo Alto. remarks: Seeds
mixed. Cultivated. Seed.
- PI 533587 donor id: X35-4-61-17-11. origin: United States.
collected: 1981. collector: O. Norvell. collector id:
X35-4-61-17-11. locality: Palo Alto. remarks: Seeds
mixed. Cultivated. Seed.
- PI 533588 donor id: X56. origin: United States. collected: 1982.
collector: O. Norvell. collector id: X56. locality:
Palo Alto. remarks: Seeds mixed. Cultivated. Seed.
- PI 533589 donor id: X56-2-49-Bulk. origin: United States.
collected: 1982. collector: O. Norvell. collector id:
X56-2-49-Bulk. locality: Palo Alto. remarks: Seeds
mixed. Cultivated. Seed.
- PI 533590 donor id: X56-2-49-27-1-6. origin: United States.
collected: 1982. collector: O. Norvell. collector id:
X56-2-49-27-1-6. locality: Palo Alto. remarks: Seeds
mixed. Cultivated. Seed.

PI 533591. *Crotalaria laburnifolia* L. FABACEAE

Donated by: Bayliss, R.D., 9 Windsor Close, Mount Pleasant, Harare, Zimbabwe. **remarks:** Received through G.M. Christenson, Germplasm Introduction & Evaluation Lab., USDA-ARS, Beltsville, Maryland. Received February 05, 1987.

donor id: 10494. **origin:** Zimbabwe. **collected:** August 07, 1986. **collector:** R.D. Bayliss. **locality:** Roadside, Great Dyke, Mtoroshanga Passage. **elevation:** 1219m. **remarks:** Plant erect, branching. Flowers yellow. Fruits inflated pods. Wild. Seed.

PI 533592. *Fraxinus* sp. OLEACEAE

Donated by: Bayliss, R.D., 9 Windsor Close, Mount Pleasant, Harare, Zimbabwe. **remarks:** Received through G.M. Christenson, Germplasm Introduction & Evaluation Lab., USDA-ARS, Beltsville, Maryland. Received February 05, 1987.

donor id: 10505B. **origin:** Zimbabwe. **collected:** August 17, 1986. **collector:** R.D. Bayliss. **locality:** Harare. **elevation:** 1580m. **remarks:** Plant deciduous to 10m. Leaves light green. Flowers small, cream. Wild. Seed.

PI 533593. *Sesbania coerulescens* Harms FABACEAE

Donated by: Bayliss, R.D., 9 Windsor Close, Mount Pleasant, Harare, Zimbabwe. **remarks:** Received through G.M. Christenson, Germplasm Introduction & Evaluation Lab., USDA-ARS, Beltsville, Maryland. Received February 05, 1987.

donor id: 10506A. **origin:** Zimbabwe. **collected:** August 12, 1986. **collector:** R.D. Bayliss. **locality:** Ruwa. **remarks:** Plant 1.5m tall. Usually in damp places. Flowers powder blue. Annual. Wild. Seed.

PI 533594. *Sesbania rogersii* E. Phillips & Hutch. FABACEAE

Donated by: Bayliss, R.D., 9 Windsor Close, Mount Pleasant, Harare, Zimbabwe. **remarks:** Received through G.M. Christenson, Germplasm Introduction & Evaluation Lab., USDA-ARS, Beltsville, Maryland. Received February 05, 1987.

donor id: 10505A. **origin:** Zimbabwe. **collected:** July 27, 1986. **collector:** R.D. Bayliss. **locality:** Vanad Mine, Umvurwes District. **elevation:** 1158m. **remarks:** Plant slender to 3m. Flowers yellow, small. Wild. Seed.

PI 533595. *Terminalia sericea* Burchell ex DC. COMBRETACEAE

Donated by: Bayliss, R.D., 9 Windsor Close, Mount Pleasant, Harare, Zimbabwe. **remarks:** Received through G.M. Christenson, Germplasm Introduction & Evaluation Lab., USDA-ARS, Beltsville, Maryland. Received February 05, 1987.

donor id: 10528. **origin:** Zimbabwe. **collected:** September 01, 1986. **collector:** R.D. Bayliss. **locality:** On Bindura Road, 6km from Mazoe. **elevation:** 1250m. **remarks:** Plant deciduous to 10m. Common in Mopane association at low altitudes. Wild. Seed.

PI 533596. *Vernonia adoensis* Schultz-Bip. ex Walp. ASTERACEAE

Donated by: Bayliss, R.D., 9 Windsor Close, Mount Pleasant, Harare, Zimbabwe. **remarks:** Received through G.M. Christenson, Germplasm Introduction & Evaluation Lab., USDA-ARS, Beltsville, Maryland. Received February 05, 1987.

donor id: 10500. **origin:** Zimbabwe. **collected:** August 10, 1986. **collector:** R.D. Bayliss. **locality:** Bindura. **elevation:** 1250m. **remarks:** Erect sub-shrub. Flower head mauve to pale pink, fragrant. Wild. Seed.

PI 533597. *Vernonia amygdalina* Del. ASTERACEAE

Donated by: Bayliss, R.D., 9 Windsor Close, Mount Pleasant, Harare, Zimbabwe. **remarks:** Received through G.M. Christenson, Germplasm Introduction & Evaluation Lab., USDA-ARS, Beltsville, Maryland. Received February 05, 1987.

donor id: 10487. **origin:** Zimbabwe. **collected:** July 27, 1986. **collector:** R.D. Bayliss. **locality:** Lekkerwater near Marondellas. **elevation:** 1280m. **remarks:** Shrub robust to 4m. Flowers white-pale mauve, fragrant. Wild. Seed.

PI 533598. *Vernonia bainesii* Oliver & Hiern ASTERACEAE

Donated by: Bayliss, R.D., 9 Windsor Close, Mount Pleasant, Harare, Zimbabwe. **remarks:** Received through G.M. Christenson, Germplasm Introduction & Evaluation Lab., USDA-ARS, Beltsville, Maryland. Received February 05, 1987.

donor id: 10471. **origin:** Zimbabwe. **collected:** July 18, 1986. **collector:** R.D. Bayliss. **locality:** Mpinga (Great Dyke). **elevation:** 1219m. Wild. Seed.

PI 533599. *Asparagus lucidus* Lindl. LILIACEAE Asparagus

Donated by: McCollum, G., Vegetable Laboratory, USDA-ARS, BARC-W, Beltsville, Maryland, United States. Received October 12, 1988.

origin: United States. **pedigree:** 8221-2(Japan)/7964((PI 317206 from Korea)). Cultivated. Seed.

PI 533600. *Hordeum vulgare* L. POACEAE Barley

Donated by: Hockett, E.A, USDA-ARS, Plant and Soil Science Dept., Montana State University, Bozeman, Montana, United States. **remarks:** Developed cooperatively by USDA-ARS and Montana Agricultural Experiment Station and released in April, 1989. Received June 30, 1989.

donor id: MT 4061. **origin:** United States. **cultivar:** HAYBET. **pedigree:** Betzes*7(CIho 6398)/Strip Tease(CIho 6837). **other id:** CV-215. **group:** CSR-BARLEY. **other id:** CIho 16569. **remarks:** Two-row, hooded, white-kerneled hay barley. Similar to Betzes in agronomic characteristics. Hay yield and test weight higher than Horsford, the most commonly grown hay barley in Montana, in dryland and irrigated trials. Part of a series of 138 CIho numbers (16557-16694) assigned to a series of isogenic barley stocks. Spring Annual. Cultivar. Seed.

PI 533601. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Palmer, R.G., USDA-ARS, Dept. of Agronomy and Genetics, Iowa State University, Ames, Iowa, United States; and Skorupska, H., Dept. of Agronomy and Genetics, Iowa State University, Ames, Iowa, United States. **remarks:** Developed cooperatively by USDA-ARS and Iowa Home Economics Experiment Station and released in 1989. Received June 30, 1989.

donor id: T295H. **origin:** United States. **pedigree:** Hawkeye/Lincoln/2/Grant/3/Amsoy 71/4/Bonus/Cutler. **other id:** GS-1. **group:** CSR-SOYBEAN. **other id:** A78-245014. **remarks:** White flower male sterile line heterozygous for fertility/sterility (wlwl/Ms6ms6). Anthers empty at anthesis. Reduced pods at maturity. Fertile plants have tawny pubescence. Maturity Group II. Close linkage (2.4% to 3.14%) between wl and ms6. Annual. Breeding Material. Seed.

PI 533602. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Caviness, R.D., Dept. of Agronomy, University of Arkansas, Fayetteville, Arkansas, United States; and Riggs R.D.; Rupe, J.C., Dept. of Plant Pathology, University of Arkansas, Fayetteville, Arkansas, United States. **remarks:** Developed by the Arkansas Agricultural Experiment Station. Received June 30, 1989.

origin: United States. **cultivar:** LLOYD. **pedigree:** Centennial/3/(R75-12L) R72-2647/2/D68-18/PI 88788,F4. **other id:** CV-239. **group:** CSR-SOYBEAN. **other id:** R79-772. **remarks:** Cultivar with resistance to soybean cyst nematode, stem canker and phytophthora rot. Maturity Group VI. Plants determinate. Flowers purple. Pubescence tawny. Seeds yellow and shiny. Oil content average 21.2%. Protein content average 41.2%. Moderately susceptible to sudden death syndrom. Well adapted for double cropping with wheat. Adapted for 30 to 36 degree latitude. **disease resistance:** High to stem canker (*Diaporthe phaseolorum* var. *caulivora*). Phytophthora rot, downy mildew. **nematode resistance:** Moderate to soybean cyst nematode races 3 and 4. Annual. Cultivar. Seed.

PI 533603. *Zea mays* L. POACEAE Popcorn

Donated by: Ziegler, K.E., Dept. of Agronomy, Iowa State University, Ames, Iowa, United States. **remarks:** Released by Iowa Agriculture and Home Economics Experiment Station, Ames in 1988. Received June 30, 1989.

* *Zea mays* L. subsp. *mays* POACEAE Popcorn
origin: United States. **cultivar:** BSP2C1. **pedigree:** Diallel crossing system intermating A3004, 33122, P203 and 62180. **other id:** GP-207. **group:** CSR-MAIZE. **locality:** Guadalajara. **remarks:** Cross-sterile large expansion popcorn synthetic. Will not accept dent corn pollen. Maturity mid- to full-season. Stalk quality above average. Popping expansion range from 20cc to 53cc per gram compared to 45cc to 48cc for hybrid checks in 1987 tests. **insect resistance:** European corn borer (*Ostrinia nubilalis*). Annual. Breeding Material. Seed.

PI 533604. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Hartwig, E.E.; Kilen, T.C., USDA Soybean Collection - South, P.O. Box 196, Stoneville, Mississippi, United States; and Lambert, L., P.O. Box 225, Stoneville, Mississippi, United States. **remarks:** Developed cooperatively by USDA-ARS and the Delta Branch, Mississippi Agricultural and Forestry Experiment Station and released in March, 1989. Received June 30, 1989.

PI 533604-continued

donor id: D82-3885. **origin:** United States. **cultivar:** LAMAR. **pedigree:** Tracy-M/2/(F3) Centennial/D75-10169. **other id:** CV-240. **group:** CSR-SOYBEAN. **remarks:** Cultivar with resistance to a wide range of foliar feeding insects. Maturity Group VI. Plants determinate growth type. Flowers white. Pubescence tawny. Pod wall tan at maturity. Seeds yellow with black hila. Seed weight 14g per 100. Resistant to bacterial pustule, phytophthora rot, stem canker, root knot nematode, and soybean cyst nematode race 3. **insect resistance:** Soybean louser (Pseudoplusia includens). Velvet bean caterpillar (Anticarsia gemmatalis). Corn earworm (Heliothis zea). Annual. Cultivar. Seed.

PI 533605. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Hartwig, E.E., USDA Soybean Collection - South, P.O. Box 196, Stoneville, Mississippi, United States; and Young, L.D., West Tennessee Exp. Stn., Jackson, Tennessee, United States. **remarks:** Developed cooperatively by USDA-ARS and the Delta Branch, Mississippi Agricultural and Forestry Experiment Station and released in March, 1989. Received June 30, 1989.

donor id: D82-2397A. **origin:** United States. **cultivar:** CORDELL. **pedigree:** Bedford*2/2/(D728927) D66-12392/*2Hill/3/PI 90763. **other id:** CV-241. **group:** CSR-SOYBEAN. **remarks:** Multiple race soybean cyst nematode resistant line. Maturity Group V. Growth type determinate. Flowers white. Pubescence tawny. Pods tan at maturity. Seeds yellow with black hila. Seed weight 10g per 100. **nematode resistance:** Soybean cyst nematode (*Heterodera glycines*) races 3, 4, 5,. **disease resistance:** Foliar disease bacterial pustule (*Xanthomonas phaseoli*). Phytophthora rot (*Phytophthora megasperma* f. sp. *glycinea*). Annual. Cultivar. Seed.

PI 533606 to 533623. *Sorghum bicolor* (L.) Moench POACEAE Sorghum

Donated by: Atkins, R.E., Dept. of Agronomy, Iowa State University, Ames, Iowa, United States. **remarks:** Released by the Iowa Agriculture and Home Economics Experiment Station in March 1989. Received June 30, 1989.

PI 533606 to 533623-continued

- PI 533606 **donor id:** IA59. **origin:** United States. **pedigree:** Wheatland/(S5) TAM Bk-42(1518-1),F6. **other id:** PL-189. **group:** CSR-SORGHUM. **other id:** 88A1292. **other id:** NSL 242370. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plants short. Maturity medium-early. Panicle medium compact. Glumes mahogany. Awned. Seeds light red. Annual. Breeding Material. Seed.
- PI 533607 **donor id:** IA60. **origin:** United States. **pedigree:** Wheatland/(S5) TAM Bk-42(1519-1). **other id:** PL-190. **group:** CSR-SORGHUM. **other id:** 88A1293. **other id:** NSL 242371. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plants medium tall. Maturity medium-early. Panicle medium compact. Glumes sienna. Awned. Seed light red. Annual. Breeding Material. Seed.
- PI 533608 **donor id:** IA61. **origin:** United States. **pedigree:** Redbine 58/4/CK60/3/(F5) CK60/Wheatland/2/SD65331, F7. **other id:** PL-191. **group:** CSR-SORGHUM. **other id:** 88A1296. **other id:** NSL 242372. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plants medium short. Maturity medium-late. Panicle medium open. Glumes mahogany color. Awnless. Seed light red. Annual. Breeding Material. Seed.
- PI 533609 **donor id:** IA62. **origin:** United States. **pedigree:** CK60/4/Redbine 58/3/(F5) CK60/Redlan/2/SD6533,F7. **other id:** PL-192. **group:** CSR-SORGHUM. **other id:** 88A1297. **other id:** NSL 242373. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new hybrids, and parents of hybrids. Plant height medium. Maturity medium late. Panicle medium open. Glumes mahogany color. Awnless. Seeds dark red. Annual. Breeding Material. Seed.
- PI 533610 **donor id:** IA63. **origin:** United States. **pedigree:** Redbine 58/2/(F5) Wheatland/TAM Bk-41, F7. **other id:** PL-193. **group:** CSR-SORGHUM. **other id:** 88A1302. **other id:** NSL 242374. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium. Maturity medium late. Panicle medium open. Glumes sienna color. Awnless. Seed color red. Annual. Breeding Material. Seed.

PI 533606 to 533623-continued

- PI 533611 **donor id:** IA64. **origin:** United States. **pedigree:** CK60/2/(F5)CK60/TAM Bk-42,F7. **other id:** PL-194. **group:** CSR-SORGHUM. **other id:** 88A1303. **other id:** NSL 242375. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium tall. Maturity medium late. Panicle medium compact. Glumes straw color. Awnless. Seeds red. Annual. Breeding Material. Seed.
- PI 533612 **donor id:** IA65. **origin:** United States. **pedigree:** CK60/2/(F5)CK60/TAM Bk-42,F7. **other id:** PL-195. **group:** CSR-SORGHUM. **other id:** 88A1304. **other id:** NSL 242376. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium. Maturity medium late. Panicle medium compact. Glumes mahogany color. Awnless. Seeds light red. Annual. Breeding Material. Seed.
- PI 533613 **donor id:** IA66. **origin:** United States. **pedigree:** CK60/2/(F5)Wheatland/KP6BR,F7. **other id:** PL-196. **group:** CSR-SORGHUM. **other id:** 88A1306. **other id:** NSL 242377. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium short. Maturity late. Panicle medium open. Glumes sienna color. Awnless. Seeds light red. Annual. Breeding Material. Seed.
- PI 533614 **donor id:** IA67. **origin:** United States. **pedigree:** CK60/2/(F5)Wheatland/KP6BR, F7. **other id:** PL-197. **group:** CSR-SORGHUM. **other id:** 88A1307. **other id:** NSL 242378. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium short. Maturity late. Panicle medium open. Glumes mahogany color, Awnless. Seeds light red. Annual. Breeding Material. Seed.
- PI 533615 **donor id:** IA68. **origin:** United States. **pedigree:** Redbine 58/3/(F5) KS24/2/KS24/Tx7078, F8. **other id:** PL-198. **group:** CSR-SORGHUM. **other id:** 88A1313. **other id:** NSL 242379. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium tall. Maturity Medium late. Panicle medium open. Glumes sienna color. Awned. Seeds light red. Annual. Breeding Material. Seed.

PI 533606 to 533623-continued

- PI 533616 **donor id:** IA69. **origin:** United States. **pedigree:** Redbine 58/4/(F5) KS24/3/Redlan/Martin/2/Caprock, F9. **other id:** PL-199. **group:** CSR-SORGHUM. **other id:** 88A1320. **other id:** NSL 242380. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium. Maturity medium. Panicle medium compact. Glumes mahogany color. Awned. Seeds light red. Annual. Breeding Material. Seed.
- PI 533617 **donor id:** IA70. **origin:** United States. **pedigree:** CK60/4/(F5)KS24/3/Redlan/Wheatland/2/Caprock, F9. **other id:** PL-200. **group:** CSR-SORGHUM. **other id:** 88A1321. **other id:** NSL 242381. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium. Maturity medium. Panicle medium open. Glumes mahogany color. Awned. Seeds light red. Annual. Breeding Material. Seed.
- PI 533618 **donor id:** IA71. **origin:** United States. **pedigree:** Redbine 58/4/(F5) KS24/3/Redlan/Wheatland/Caprock, F9. **other id:** PL-201. **group:** CSR-SORGHUM. **other id:** 88A1323. **other id:** NSL 242382. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium tall. Maturity medium early. Panicle medium open. Glumes straw color. Awned. Seeds light red. Annual. Breeding Material. Seed.
- PI 533619 **donor id:** IA72. **origin:** United States. **pedigree:** Redbine 58/KS55, F12. **other id:** PL-202. **group:** CSR-SORGHUM. **other id:** 88A1324. **other id:** NSL 242383. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium tall. Maturity medium late. Panicle medium open. Glumes straw color. Awnless. Seeds light red. Annual. Breeding Material. Seed.
- PI 533620 **donor id:** IA73. **origin:** United States. **other id:** PL-203. **group:** CSR-SORGHUM. **other id:** 88A1325, NSL 242384. **other id:** IAP1R(M)C3, 82A81-2, S6. **remarks:** Inbred pollen fertility restorer in A1 cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium. Maturity medium early. Panicle open. Glumes straw color. Awnless. Seed dark red. Annual. Breeding Material. Seed.

PI 533606 to 533623-continued

- PI 533621 **donor id:** IA74. **origin:** United States. **other id:** PL-204. **group:** CSR-SORGHUM. **other id:** 88A1327, NSL 242385. **other id:** IAP1R(M)C3, 82A81-3, S6. **remarks:** Inbred pollen fertility restorer in Al cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height medium tall. Maturity early. Panicle medium open. Glumes sienna color. Awnless. Seed red. Annual. Breeding Material. Seed.
- PI 533622 **donor id:** IA75. **origin:** United States. **other id:** PL-205. **group:** CSR-SORGHUM. **other id:** 88A1328, NSL 242386. **other id:** IAP1R(M)C3, 82A88-3, S6. **remarks:** Inbred pollen fertility restorer in Al cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height short. Maturity medium. Panicle medium open. Glumes straw color. Awnless. Seeds light red. Annual. Breeding Material. Seed.
- PI 533623 **donor id:** IA76. **origin:** United States. **other id:** PL-206. **group:** CSR-SORGHUM. **other id:** 88A1329, NSL 242387. **other id:** IAP3BR(M)C4, 83A103-4, S5. **remarks:** Inbred pollen fertility restorer in Al cytoplasm. Potential use in population development, production of new inbreds, and parents of hybrids. Plant height short. Maturity medium. Panicle open. Glumes straw color. Awned. Annual. Breeding Material. Seed.

PI 533624. *Medicago sativa* L. FABACEAE Alfalfa

Donated by: Woodward, W.T.W, Pioneer Hi-Bred International, Inc., P.O. Box 287, Johnston, Iowa, United States. **remarks:** Developed by Pioneer Hi-Bred International, Inc. and released 24 February, 1989. Received June 30, 1989.

donor id: 83SR241. **origin:** United States. **cultivar:** 5262. **pedigree:** Recurrent phenotypic selection using *M. falcata*, Ladak, *M. varia*, and Turkish, Flemish, and Chilean varieties. **other id:** CV-161. **group:** CSR-ALFALFA. **other id:** XAF62. **other id:** YAF62. **remarks:** Cultivar with resistance to bacterial wilt, *Phytophthora* root rot and aphid biotypes. Fall dormancy similar to Vernal. Flowers 67% purple, 31% variegated, 2% yellow, and traces of white and cream. Moderate resistance to *Fusarium* wilt, and stem nematode. Low resistance to *Verticillium* wilt. **disease resistance:** Bacterial wilt (*Clavibacter michiganense* subsp. *insidiosum*). **insect resistance:** Pea aphid (*Acyrtosiphon pisum*) Iowa biotypes. Spotted alfalfa aphid (*Therioaphis maculata*). Perennial. Cultivar. Seed.

PI 533625. *Medicago sativa* L. FABACEAE Alfalfa

Donated by: Woodward, W.T.W, Pioneer Hi-Bred International, Inc., P.O. Box 287, Johnston, Iowa, United States. **remarks:** Developed by Pioneer Hi-Bred International, Inc. and released 24 February, 1989. Received June 30, 1989.

donor id: 83CR252. **origin:** United States. **cultivar:** 5364. **pedigree:** Fifteen-clone synthetic using *M. falcata*, Ladak, *M. varia*, Turkish, Flemish, Chilean, and Peruvian varieties. **other id:** CV-162. **group:** CSR-ALFALFA. **other id:** XAR64. **other id:** YAR64. **remarks:** Cultivar with high resistance to spotted alfalfa aphid and pea aphid biotypes. Fall dormancy similar to Saranac. Moderate resistance to anthracnose, *Verticillium* wilt, *Phytophthora* root rot. Flowers 98% purple, 2% variegated, and traces of yellow, cream, and white. **disease resistance:** Bacterial wilt, *Fusarium* wilt. **insect resistance:** Pea aphid, IA biotypes; spotted alfalfa aphid, CA biotypes. **nematode resistance:** Stem nematode (*Ditylenchus dipsaci*). Perennial. Cultivar. Seed.

PI 533626 to 533628. *Zea mays* L. POACEAE Corn

Donated by: Cross, H.Z., Dept. of Crop and Weed Sciences, North Dakota State University., Fargo, North Dakota, United States. **remarks:** Developed by the Agricultural Experiment Station, North Dakota State University, Fargo and released in March, 1989. Received June 30, 1989.

- * PI 533626 *Zea mays* L. subsp. *mays* POACEAE Maize
origin: United States. **cultivar:** NDSAB(MS)C8. **pedigree:** Yellow dent synthetic from 5 cycles of mass selection of NDSAB. **other id:** GP-208. **group:** CSR-MAIZE. **locality:** Guadalajara. **remarks:** Grain yield increase of 14.5% over earlier NDSAB lines. Harvest moisture and lodging same as NDSAB. Good source population for high yielding, very early hybrids. Annual. Breeding Material. Seed.
- * PI 533627 *Zea mays* L. subsp. *mays* POACEAE Maize
origin: United States. **cultivar:** NDSB(MS)C8(LM)C3. **pedigree:** Yellow-dent-endosperm synthetic from 3 cycles of NDSB(MS)C8. **other id:** GP-209. **group:** CSR-MAIZE. **locality:** Guadalajara. **remarks:** Grain yield and stalk lodging similar to NDSB(MS)C8. Maturity earlier. Ear moisture content lower over eight environments. Good production source population for early hybrids. Annual. Breeding Material. Seed.

PI 533626 to 533628-continued

- * PI 533628 *Zea mays* L. subsp. *mays* POACEAE Maize
origin: United States. **cultivar:** NDSG(MS)C8(LM)C3.
pedigree: Yellow-dent-endosperm synthetic from 3 cycles
of NDSG(MS)C8. **other id:** GP-210. **group:** CSR-MAIZE.
locality: Guadalajara. **remarks:** Grain yield and stalk
lodging similar to NDSG(MS)C8. Ear moisture content lower
over 4 environments. Good production source population
for very early, high yielding hybrids. Susceptible to
root lodging. Annual. Breeding Material. Seed.

PI 533629 to 533633. *Gossypium hirsutum* L. MALVACEAE Cotton

Donated by: Culp, T.W.; Green, C.C., USDA-ARS, P.O. Box 2131,
Florence, South Carolina, United States; and Kittrell, B.U., Pee Dee
Res. and Ed. Ctr., Route 1, Florence, South Carolina, United States.
remarks: Released by USDA-ARS and the South Carolina Agricultural
Experiment Station in 1988. Received June 30, 1989.

- PI 533629 **origin:** United States. **cultivar:** PD 648. **pedigree:** PD
695/Deltapine 7146N. **other id:** GP-394. **group:**
CSR-COTTON. **remarks:** Germplasm with potential high
yield, insect resistance and insecticide
(azinphosmethyl,fenvalerate) tolerance. Maturity early.
Lint yield and environmental stability superior to check
cultivars SC-1, Coker 310, and Coker 201. Bract frego.
Fiber properties similar to Coker 201. **insect**
resistance: Bollworm (*Heliothis zea*). Tobacco budworm
(*H. virescens*). Boll weevil (*Anthonomus grandis*).
Annual. Breeding Material. Seed.

- PI 533630 **origin:** United States. **cultivar:** PD 683. **pedigree:** PD
695/PD 869. **other id:** GP-395. **group:** CSR-COTTON.
remarks: Germplasm with potential high yield, insect
resistance and insecticide (azinphosmethyl,fenvalerate)
tolerance. Maturity early. Lint yield and environmental
stability superior to check cultivars SC-1, Coker 310,
and Coker 201. Bract frego. Fiber properties similar to
Coker 201. **insect resistance:** Bollworm (*Heliothis zea*).
Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus*
grandis). Annual. Breeding Material. Seed.

- PI 533631 **origin:** United States. **cultivar:** PD 723. **pedigree:** PD
695/5-718. **other id:** GP-396. **group:** CSR-COTTON.
remarks: Germplasm with potential high yield, insect
resistance and insecticide (azinphosmethyl,fenvalerate)
tolerance. Maturity early. Lint yield and environmental
stability superior to check cultivars SC-1, Coker 310,
and Coker 201. Bract frego. Fiber properties similar to
Coker 201. **insect resistance:** Bollworm (*Heliothis zea*).
Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus*
grandis). Annual. Breeding Material. Seed.

PI 533629 to 533633-continued

PI 533632 **origin:** United States. **cultivar:** PD 878. **pedigree:** TX-ORS-75C/Deltapine 7146N. **other id:** GP-397. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance and insecticide (azinphosmethyl, fenvalerate) tolerance. Maturity early. Lint yield and environmental stability superior to check cultivars SC-1, Coker 310, and Coker 201. Bract frego. Fiber properties similar to Coker 201. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533633 **origin:** United States. **cultivar:** PD 948. **pedigree:** TX-ORS-75C/PD 875. **other id:** GP-398. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance and insecticide (azinphosmethyl, fenvalerate) tolerance. Maturity early. Lint yield and environmental stability superior to check cultivars SC-1, Coker 310, and Coker 201. Bract frego. Fiber properties similar to Coker 201. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533634 to 533645. *Gossypium hirsutum* L. MALVACEAE Cotton

Donated by: Culp, T.W.; Green, C.C., USDA-ARS, P.O. Box 2131, Florence, South Carolina, United States; and Kittrell, B.U., Pee Dee Res. and Ed. Ctr., Route 1, Florence, South Carolina, United States. Received June 30, 1989.

PI 533634 **origin:** United States. **cultivar:** PD 738. **pedigree:** PD 695/PD 875. **other id:** GP-399. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly normal bract with high prolificness. Maturity early. Lint yield higher than checks SC-1, Coker 310 and Coker 201. Good environmental stability. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533634 to 533645-continued

- PI 533635 **origin:** United States. **cultivar:** PD 741. **pedigree:** PD 695/PD 875. **other id:** GP-400. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yields, levels of resistance and greater environmental stability than parental lines and checks SC-1, Coker 310 and Coker 201. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533636 **origin:** United States. **cultivar:** PD 747. **pedigree:** PD 695/PD 875. **other id:** GP-401. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly normal bract with high prolificness. Maturity early. Lint yield higher than checks SC-1, Coker 310, and Coker 201. Good environmental stability. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533637 **origin:** United States. **cultivar:** PD 753. **pedigree:** PD 695/PD 875. **other id:** GP-402. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly normal bract with higher prolificness. Maturity early. Lint yield higher than checks SC-1, Coker 310, and Coker 201. Good environmental stability. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533638 **origin:** United States. **cultivar:** PD 756. **pedigree:** PD 695/PD 875. **other id:** GP-403. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, levels of resistance and greater environmental stability than the parental lines and checks SC-1, Coker 310, and Coker 201. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533634 to 533645-continued

- PI 533639 **origin:** United States. **cultivar:** PD 761. **pedigree:** PD 695/PD 875. **other id:** GP-404. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yields, levels of resistance and greater environmental stability than parental lines and checks SC-1, Coker 310, and Coker 210. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533640 **origin:** United States. **cultivar:** PD 762. **pedigree:** PD 695/PD 875. **other id:** GP-405. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yields, levels of resistance and greater environmental stability than parental lines and checks SC-1, Coker 310, and Coker 201. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533641 **origin:** United States. **cultivar:** PD 771. **pedigree:** PD 695/PD 875. **other id:** GP-406. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly normal bract with high prolificness. Maturity early. Lint yield higher than checks SC-1, Coker 310, and Coker 201. Good environmental stability. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533642 **origin:** United States. **cultivar:** PD 778. **pedigree:** PD 695/PD 875. **other id:** GP-407. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yields, levels of resistance and greater environmental stability than parental lines and checks SC-1, Coker 310, and Coker 201. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533634 to 533645-continued

- PI 533643 **origin:** United States. **cultivar:** PD 781. **pedigree:** PD 695/PD 875. **other id:** GP-408. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yields, levels of resistance and greater environmental stability than parental line and checks SC-1, Coker 310, and Coker 210. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533644 **origin:** United States. **cultivar:** PD 785. **pedigree:** PD 695/PD 875. **other id:** GP-409. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yields, levels of resistance, and greater environmental stability than parental lines and checks SC-1, Coker 310, and Coker 201. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533645 **origin:** United States. **cultivar:** PD 804. **pedigree:** PD 695/PD 875. **other id:** GP-410. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, level of resistance, and greater environmental stability than parental lines and checks SC-1, Coker 310, and Coker 201. Yarn and fiber strength equal to PD 695. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533646 to 533652. *Gossypium hirsutum* L. MALVACEAE Cotton

Donated by: Culp, T.W.; Green, C.C., USDA-ARS, P.O. Box 2131, Florence, South Carolina, United States; and Kittrell, B.U., Pee Dee Res. and Ed. Ctr., Route 1, Florence, South Carolina, United States. **remarks:** Released by USDA-ARS and the South Carolina Agricultural Experiment Station in 1988. Received June 30, 1989.

PI 533646 to 533652-continued

- PI 533646 **origin:** United States. **cultivar:** PD 7388. **pedigree:** PD 8619/La. Frego 2/2/*2PD 8619. **other id:** GP-411. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, level of resistance, and greater environmental stability than resistant checks PD 695, PD 875, PD 8619, PD-2, SC-1, Coker 201, and Coker 310. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533647 **origin:** United States. **cultivar:** PD 7439. **pedigree:** PD 8650/La. Frego 2/2/*2PD 8650. **other id:** GP-412. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, level of resistance, and greater environmental stability than resistant checks PD 695, PD 875, PD 8619, PD-2, SC-1, Coker 201, and Coker 310. Fiber strength comparable to PD-2. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533648 **origin:** United States. **cultivar:** PD 7458. **pedigree:** PD 8499/La. Frego 2/2/*2Coker 310. **other id:** GP-413. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, level of resistance, and greater environmental stability than resistant checks PD 695, PD 875, PD 8619, PD-2, SC-1, Coker 201, and Coker 310. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.
- PI 533649 **origin:** United States. **cultivar:** PD 7496. **pedigree:** PD 8550/La. Frego 2/2/*2PD 9241. **other id:** GP-414. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, level of resistance, and greater environmental stability than resistant checks PD 695, PD 875, PD 8619, PD-2, SC-1, Coker 201, and Coker 310. Fiber strength comparable to PD-2. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533646 to 533652-continued

PI 533650 **origin:** United States. **cultivar:** PD 7501. **pedigree:** PD 8550/La. Frego 2/2/*2PD 9241. **other id:** GP-415. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, level of resistance, and greater environmental stability than resistant checks PD 695, PD 875, PD 8619, PD-2, SC-1, Coker 201, and Coker 310. Fiber strength comparable to PD-2. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533651 **origin:** United States. **cultivar:** PD 7586. **pedigree:** PD 8562/La. Frego 2/2/*2PD 9257. **other id:** GP-416. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, level of resistance, and greater environmental stability than resistant checks PD 695, PD 875, PD 8619, PD-2, SC-1, Coker 201, and Coker 310. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533652 **origin:** United States. **cultivar:** PD 7723. **pedigree:** PD 8562/La. Frego 2/2/*2PD 6520. **other id:** GP-417. **group:** CSR-COTTON. **remarks:** Germplasm with potential high yield, insect resistance, and good response to insecticides azinphosmethyl and fenvalerate. Plants predominantly frego bract. Higher lint yield, level of resistance, and greater environmental stability than resistant checks PD 695, PD 875, PD 8619, PD-2, SC-1, Coker 201, and Coker 310. Fiber strength comparable to PD-2. **insect resistance:** Bollworm (*Heliothis zea*). Tobacco budworm (*H. virescens*). Boll weevil (*Anthonomus grandis*). Annual. Breeding Material. Seed.

PI 533653. *Sorghum bicolor* (L.) Moench POACEAE Sorghum

Donated by: Duncan, R.R., Dept. of Agronomy, Georgia Experiment Station, University of Georgia, Griffin, Georgia, United States. **remarks:** Developed and released cooperatively by the University of Georgia, Texas A&M University, and USDA-ARS June, 1989. Received June 30, 1989.

PI 533653-continued

donor id: GTPP7R(H)C5. **origin:** United States. **pedigree:** TP24R synthesized population. **other id:** GP-235. **group:** CSR-SORGHUM. **other id:** TP24R. **remarks:** Germplasm with foliar disease resistance, good agronomic characteristics, corneous endosperm types adapted to tropical and subtropical environments. Plants tan. Combine-height genotypes. Panicle -open to semi-open. Seed white. No mesocarp or pigmented testa. **disease resistance:** Anthracnose, gray leaf spot, rough leaf spot. zonate leaf spot and leaf blight. Annual. Breeding Material. Seed.

PI 533654. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Nickell, C.D.; Thomas, D.J.;, Dept. of Agronomy, University of Illinois, 1102 S. Goodwin Ave., Urbana, Illinois, United States. **remarks:** Developed by Illinois Agricultural Experiment Station and released in August, 1988. Received June 30, 1989.

origin: United States. **cultivar:** LN83-2356. **pedigree:** LN78-2714(Evans/K1028)/HC76-4030(Williams/Ransom/2/Essex, d tl sel.). **other id:** CV-242. **group:** CSR-SOYBEAN. **other id:** SNB 189. **remarks:** Cultivar with high yield, seed protein and oil content. Maturity Group IV. Flowers purple. Pubescence brown. Pods tan. Seed dull yellow with black hila. Susceptible to phytophthora rot (*Phytophthora megasperma* f. sp. *glycinea*) and brown stem rot (*Phialophora gregata*). Annual. Cultivar. Seed.

PI 533655. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Nickell, C.D., Dept. of Agronomy, University of Illinois, 1102 S. Goodwin Ave., Urbana, Illinois, United States. **remarks:** Developed by Illinois Agricultural Experiment Station and released in August, 1988. Received June 30, 1989.

PI 533655-continued

origin: United States. **cultivar:** BURLISON. **pedigree:** K74-113-76-486(Tracy/Pomona sel)/Century, F4. **other id:** CV-243. **group:** CSR-SOYBEAN. **other id:** NSL 242207. **other id:** LN82-9648, SNB 191. **remarks:** Cultivar with multiple race resistance (Rps1b, Rps3) to phytophthora rot, Maturity group II. Higher yield, heavier seed weight, better lodging resistance and protein content than Elgin 87. Seed oil content lower. Sensitive to metribuzin. Flowers white. Pubescence brown. Pods tan. Seed dull yellow with black hila. **disease resistance:** Phytophthora rot (Phytophthora megasperma f. sp. glycinea). Downy mildew, bacterial pustule, powdery mildew. **insect resistance:** Spider mite (Tetranychus spp.). Annual. Cultivar. Seed.

PI 533656 to 533657. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Nickell, C.D., Dept. of Agronomy, University of Illinois, 1102 S. Goodwin Ave., Urbana, Illinois, United States. **remarks:** Developed by Illinois Agricultural Experiment Station and released in August, 1988. Received June 30, 1989.

PI 533656 **donor id:** LN 86-1595. **origin:** United States. **pedigree:** Hack/PI 437833. **other id:** GP-119. **group:** CSR-SOYBEAN. **remarks:** Germplasm with new source of resistance to brown stem rot. Maturity Group II. Flowers purple. Pubescence gray. Pods tan. Seed yellow with buff hila. Lodging, height, and seed quality similar to Elgin 87 and BSR 201. **disease resistance:** Brown stem rot (Phialophora gregata). Phytophthora rot race 1. Annual. Breeding Material. Seed.

PI 533657 **donor id:** LN 86-1947. **origin:** United States. **pedigree:** PI 437883/Elgin, F4. **other id:** GP-120. **group:** CSR-SOYBEAN. **remarks:** Germplasm with new source of resistance to brown stem rot. Maturity Group I. Flowers purple. Pubescence brown. Pods brown. Seed yellow with black hila. Yield, lodging, height, and seed quality similar to BSR 201. **disease resistance:** Brown stem rot (Phialophora gregata). Phytophthora rot race 1. Annual. Breeding Material. Seed.

PI 533658. Zea mays L. POACEAE Corn

Donated by: Wicks, III, Z.W., Plant Science Dept., South Dakota State University, Brookings, South Dakota, United States. **remarks:** Developed by the Agricultural Experiment Station, South Dakota State University and released in March, 1987. Received June 30, 1989.

- * Zea mays L. subsp. mays POACEAE Maize
origin: United States. **cultivar:** SD101. **pedigree:** CM65/SD37 related line. Selfed 10 generations. **other id:** PL-130. **group:** CSR-MAIZE. **remarks:** Parental line with source of resistance to lesion nematode. Maturity AES400. Plants 137cm tall, dark green. Tassels small. Cobs red with 14 to 18 rows. Kernels medium-size. Stay green, earfill, stalk and root strength good. Vigor excellent. **disease resistance:** Northern corn leaf blight (*Exserohilum turcicum*). **nematode resistance:** Diplodia stalk rot (*Diplodia maydis*). Lesion nematode (*Pratylenchus hexincisus*, *P. scribneri*). Annual. Breeding Material. Seed.

PI 533659 to 533660. Zea mays L. POACEAE Corn

Donated by: Wicks, III, Z.W., Plant Science Dept., South Dakota State University, Brookings, South Dakota, United States. **remarks:** Developed by the Agricultural Experiment Station, South Dakota State University and released in March, 1987. Received June 30, 1989.

- * PI 533659 Zea mays L. subsp. mays POACEAE Maize
origin: United States. **cultivar:** SD102. **pedigree:** Pioneer 3710 selection backcrossed for 10 generations. **other id:** PL-131. **group:** CSR-MAIZE. **remarks:** Parental yellow dent source of resistance to lesion nematode. Maturity AES400. Plants 129cm tall. Cobs red with 14 to 16 kernel rows. Ear fill good. Stalk and root strength, loose husks good. Moisture content about 20% 60 days after pollination. Combines well with A632. Suitable for central and southern South Dakota. **nematode resistance:** Lesion nematode (*Pratylenchus hexincisus*). Annual. Breeding Material. Seed.
- * PI 533660 Zea mays L. subsp. mays POACEAE Maize
origin: United States. **cultivar:** SD103. **pedigree:** Pioneer 3710 selection backcrossed for 10 generations. **other id:** PL-132. **group:** CSR-MAIZE. **remarks:** Parental yellow dent source of resistance to lesion nematode. Maturity AES400. Plants 138cm tall. Cobs red with 14 to 16 kernel rows. Ear fill good. Stalk and root strength, loose husks good. Moisture content about 20% 60 days after pollination. Combines well with A619. Suitable for central and southern South Dakota. **nematode resistance:** Lesion nematode (*Pratylenchus hexincisus*). Annual. Breeding Material. Seed.

PI 533661 to 533663. *Zea mays* L. POACEAE Corn

Donated by: Wicks, III, Z.W., Plant Science Dept., South Dakota State University, Brookings, South Dakota, United States. **remarks:** Developed by the Agricultural Experiment Station, South Dakota State University and released in March, 1987. Received June 30, 1989.

- * PI 533661 *Zea mays* L. subsp. *mays* POACEAE Maize
origin: United States. **cultivar:** SD45. **pedigree:** SDp232/H96 selfed for 7 generations. **other id:** PL-133.
group: CSR-MAIZE. **remarks:** Parental line with good combining ability, yield and low moisture content. Maturity AES400. Plants 198cm tall, dark green. Tassels medium. Cobs red with 14 medium-size kernel rows. Vigor, stalk and root strength good. Average ear fill. Moisture content about 20% 60 days after pollination. Combines well with A632. Suitable for central and southern South Dakota. **disease resistance:** Northern corn leaf blight (*Exserohilum turcicum*). Diplodia stalk rot (*Diplodia maydis*). Annual. Breeding Material. Seed.

- * PI 533662 *Zea mays* L. subsp. *mays* POACEAE Maize
origin: United States. **cultivar:** SD47. **pedigree:** SDp309/SD30 selfed for 7 generations. **other id:** PL-134.
group: CSR-MAIZE. **remarks:** Parental line with good combining ability, yield and low moisture content. Maturity AES400. Plants 180cm tall, dark green. Cobs red with 16 to 18 medium-sized kernel rows. Vigor, ear fill, husk looseness and root strength good. Moisture content 20% 60 days after pollination. Suitable for central and southern South Dakota. **disease resistance:** Northern corn leaf blight (*Exserohilum turcicum*). Diplodia stalk rot (*Diplodia maydis*). Annual. Breeding Material. Seed.

- * PI 533663 *Zea mays* L. subsp. *mays* POACEAE Maize
origin: United States. **cultivar:** SD48. **pedigree:** Pioneer hybrid 3710 selfed for 7 generations. **other id:** PL-135. **group:** CSR-MAIZE. **remarks:** Parental line with good combining ability, yield and low moisture content. Maturity AES400. Plants 180cm tall, dark green. Cobs red with 14 to 16 medium-sized kernel rows. Stalk strength and stay green excellent. Vigor, ear fill, root strength, and husk looseness good. Moisture content about 20% 60 days after pollination. Suitable for central, and southern South Dakota. **disease resistance:** Northern corn leaf blight (*Exserohilum turcicum*). Diplodia stalk rot (*Diplodia maydis*). Annual. Breeding Material. Seed.

PI 533664 to 533666. *Crambe abyssinica* Hochst. ex R. E. Fries
BRASSICACEAE *Crambe*

Donated by: Campbell, T. A., Germplasm Quality & Enhancement Lab.,
USDA-ARS, Beltsville Agricultural Research Center, Beltsville,
Maryland, United States. Received April 06, 1989.

PI 533664 **donor id:** C-22. **origin:** United States. **pedigree:** F7
sel. from PI384524/PI392327/2/PI384527/384522/3/Indy (PI
279346). **other id:** GP-1. **group:** CSR-OTHER OILSEEDS.
other id: NSL 202442. **remarks:** Developed as a high
yielding source of erucic acid for the chemical industry.
Maturity three months from seeding. Plants erect,
uniform, .6-1m tall at maturity. Tolerant of chilling and
temperate summers. Moderately tolerant of infection by
Alternaria brassicicola. Possibility of two crops per
season in the NE, Midwest and Pacific NW. Some potential
in S and SW as winter or summer annual. Annual.
Breeding Material. Seed.

PI 533665 **donor id:** C-29. **origin:** United States. **pedigree:** F7
sel. from PI384524/PI392327/2/PI384527/384522/3/Indy (PI
279346). **other id:** GP-2. **group:** CSR-OTHER OILSEEDS.
other id: NSL 202443. **remarks:** Developed as a high
yielding source of erucic acid for the chemical industry.
Maturity three months from seeding. Plants erect,
uniform, .6-1m tall at maturity. Tolerant of chilling and
temperate summers. Moderately tolerant of infection by
Alternaria brassicicola. Possibility of two crops per
season in the NE, Midwest and Pacific NW. Some potential
in S and SW as winter or summer annual. Annual.
Breeding Material. Seed.

PI 533666 **donor id:** C-37. **origin:** United States. **pedigree:** F7
sel. from PI384523/PI384529/2/PI384530/PI370747/3/Indy
(PI 279346). **other id:** GP-3. **group:** CSR-OTHER OILSEEDS.
other id: NSL 202444. **remarks:** Developed as a high
yielding source of erucic acid for the chemical industry.
Maturity three months from seeding. Plants erect,
uniform, .6-1m tall at maturity. Tolerant of chilling and
temperate summers. Moderately tolerant of infection by
Alternaria brassicicola. Possibility of two crops per
season in the NE, Midwest and Pacific NW. Some potential
in S and SW as winter or summer annual. Annual.
Breeding Material. Seed.

PI 533667 to 533668. *Crambe abyssinica* Hochst. ex R. E. Fries
BRASSICACEAE *Crambe*

Donated by: Campbell, T. A., Germplasm Quality & Enhancement Lab.,
USDA-ARS, Beltsville Agricultural Research Center, Beltsville,
Maryland, United States. Received April 06, 1989.

PI 533667 to 533668-continued

PI 533667 **origin:** United States. **cultivar:** BELANN. **pedigree:** F7 sel. from PI384523/PI384529/2/PI384530/PI370747/3/Indy (PI 279346). **other id:** CV-1. **group:** CSR-OTHER OILSEEDS. **other id:** NSL 202440. **remarks:** Developed as a high yielding source of erucic acid for the chemical industry. Maturity three months. Plants erect, uniform, .6-1m tall at maturity. Tolerant of chilling and temperate summers. Moderately tolerant of infection by *Altenaria brassicola*. Possibility of two crops per season in the NE, Midwest and Pacific NW. Some potential in S and SW as winter or summer annual. Annual. Cultivar. Seed.

PI 533668 **origin:** United States. **cultivar:** BELENZIAN. **pedigree:** F7 sel. from PI384523/PI384529/2/PI384530/PI370747/3/Indy (PI 279346). **other id:** CV-2. **group:** CSR-OTHER OILSEEDS. **other id:** NSL 202441. **remarks:** Developed as a high yielding source of erucic acid for the chemical industry. Maturity three months. Plants erect, uniform, .6-1m tall at maturity. Tolerant of chilling and temperate summers. Moderately tolerant of infection by *Altenaria brassicola*. Possibility of two crops per season in the NE, Midwest and Pacific NW. Some potential in S and SW as winter or summer annual. Annual. Cultivar. Seed.

PI 533669 to 533684. *Cicer arietinum* L. FABACEAE Chickpea

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

PI 533669 **donor id:** 870525-09. **origin:** Spain. **cultivar:** BLANCO LECHOSO. **collected:** May 25, 1987. **locality:** Canete de las Torres. **elevation:** 200m. **remarks:** Seeds obtained from Miluma, S.A., Seed Co., Canete de las Torres, Cordoba Province. Cultivar. Seed.

PI 533670 **donor id:** 870525-10. **origin:** Spain. **cultivar:** DEL PAIS (CASTELLANO). **collected:** May 25, 1987. **other id:** Castellano. **locality:** Canete de las Torres. **elevation:** 200m. **remarks:** Seeds obtained from Miluma, S.A. Seed Co., Canete de las Torres, Cordoba Province. Cultivar. Seed.

PI 533671 **donor id:** 870525-11. **origin:** Spain. **cultivar:** PEDROSILLANO. **collected:** May 25, 1987. **elevation:** 200m. **remarks:** Seeds obtained from Miluma, S.A., Seed Co., Canete de las Torres, Cordoba Province. Cultivar. Seed.

PI 533669 to 533684-continued

- PI 533672 donor id: 870525-12. origin: Spain. cultivar: PEDROSILLANO. collected: May 25, 1987. elevation: 200m. remarks: Seeds obtained from Miluma, S.A., Seed Co., Canete de las Torres, Cordoba Province. Cultivar. Seed.
- PI 533673 donor id: 870527-01. origin: Spain. origin institute: Servicio de Investigaciones Agrarias Sta, El Rancho de la Merced, Jerez de la Fro., Cadiz Province. cultivar: ALHAMA. collected: May 27, 1987. elevation: 35m. remarks: Seeds large, kabuli type. Cultivar. Seed.
- PI 533674 donor id: 870527-02. origin: Spain. origin institute: Servicio de Investigaciones Agrarias Sta, El Rancho de la Merced, Jerez de la Fro., Cadiz Province. cultivar: CHATO MADRILENO. collected: May 27, 1987. remarks: Seeds large, kabuli type. Cultivar. Seed.
- PI 533675 donor id: 870527-03. origin: Spain. origin institute: Servicio de Investigaciones Agrarias Sta, El Rancho de la Merced, Jerez de la Fro., Cadiz Province. cultivar: DEL PAIS. collected: May 27, 1987. remarks: Seeds large, kabuli type. Cultivar. Seed.
- PI 533676 donor id: 870527-06. origin: Spain. origin institute: Servicio de Investigaciones Agrarias Sta, El Rancho de la Merced, Jerez de la Fro., Cadiz Province. cultivar: NEGRO VICOS. collected: May 27, 1987. remarks: Seeds medium, black, desi type. Cultivar. Seed.
- PI 533677 donor id: 870527-08. origin: Mexico. origin institute: Servicio de Investigaciones Agrarias Sta, El Rancho de la Merced, Jerez de la Fro., Cadiz Province. cultivar: GAVILAN. collected: May 27, 1987. locality: Hermosillo, Northern Mexico. remarks: Seeds large, kabuli type. disease resistance: Fusarium wilt. Cultivar. Seed.
- PI 533678 donor id: 870527-09. origin: Mexico. origin institute: Servicio de Investigaciones Agrarias Sta, El Rancho de la Merced, Jerez de la Fro., Cadiz Province. cultivar: LIZ. collected: May 27, 1987. locality: Northern Mexico. remarks: Seeds large, kabuli type. disease resistance: Fusarium wilt. Cultivar. Seed.
- PI 533679 donor id: 870527-10. origin: Mexico. origin institute: Servicio de Investigaciones Agrarias Sta, El Rancho de la Merced, Jerez de la Fro., Cadiz Province. cultivar: TUBUTANA. collected: May 27, 1987. remarks: Seeds large, kabuli type. disease resistance: Fusarium wilt. Cultivar. Seed.

PI 533669 to 533684-continued

- PI 533680 donor id: 870603-01. origin: Spain. cultivar: AREVALO. collected: June 3, 1987. remarks: Seeds large, kabuli type. Seeds obtained from Mr. Manuel Rendon Velazquez, Servicio de Investigaciones Agrarias Sevilla. Cultivar. Seed.
- PI 533681 donor id: 870603-02. origin: Spain. cultivar: CHAMA. collected: June 3, 1987. remarks: Seeds large, kabuli type. Seeds obtained from Mr. Manuel Rendon Velazquez, Servicio de Investigaciones Agrarias, Sevilla. Cultivar. Seed.
- PI 533682 donor id: 870603-03. origin: Spain. cultivar: MULATO. collected: June 3, 1987. remarks: Seeds large, desi type. Used for animal feed. Seeds obtained from Mr. Manuel Rendon Velazquez, Servicio de Investigaciones Agrarias, Sevilla. Cultivar. Seed.
- PI 533683 donor id: 870603-04. origin: Spain. cultivar: NEGRO GARCIA. locality: El Saucejo, near Sevilla. remarks: Seeds small, black type. Seeds obtained from Mr. Manuel Rendon Velazquez, Servicio de Investigaciones Agrarias, Sevilla. Cultivar. Seed.
- PI 533684 donor id: 870603-05. origin: Spain. cultivar: MARTIN. pedigree: Selection from ICARDA line (prob. ILC-72). remarks: Seeds small, Kabuli type. Seed obtained from Mr. Manuel Rendon Velazquez, Servicio de Investigaciones Agrarias, Sevilla. disease resistance: Ascochyta blight. Cultivar. Seed.

PI 533685 to 533686. *Lathyrus cicera* L. FABACEAE Flatpod peavine

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

- PI 533685 donor id: 870608-12. origin: Spain. collected: June 8, 1987. locality: Research plots near Ucles. remarks: Pods green. Seeds obtained from Gregorio Fernandez Bailon, Extension Agent, Tarancon, Cuenca Province. Mixed with *Vicia ervilia*. Cultivated. Seed.
- PI 533686 donor id: 870608-19. origin: Spain. local name: Titarro. collected: June 8, 1987. locality: Near Saelices, Cuenca Province. Cultivated. Seed.

PI 533687. *Lathyrus sativus* L. FABACEAE Grass pea

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

* *Pisum sativum* L. FABACEAE Grass pea
donor id: 870608-08. **origin:** Spain. **local name:** Chicharos. **collected:** June 08, 1987. **remarks:** Seeds obtained from Gregorio Fernandez Bailon, Extension Agent in Tarancon, Cuenca Province. Cultivated. Seed.

PI 533688 to 533693. *Lens culinaris* Medikus FABACEAE Lentil

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

PI 533688 **donor id:** 870523-13. **origin:** Spain. **collected:** May 23, 1987. **locality:** Vicinity of Montilla. **remarks:** Seeds medium sized. Obtained from Mr. Antonio Traperero, Montilla, Cordoba Province. Cultivated. Seed.

PI 533689 **donor id:** 870602-01. **origin:** Spain. **cultivar:** CASTELLANA. **collected:** June 2, 1987. **locality:** Leon Province. **remarks:** Seeds large. Cotyledons yellow. Seeds obtained from Mr. Eugenio Silos, Cordoba Province. Cultivar. Seed.

PI 533690 **donor id:** 870602-02. **origin:** Spain. **cultivar:** PARDINA. **collected:** June 2, 1987. **remarks:** Seeds small. Cotyledons orange. Seeds obtained from Mr. Eugenio Silos and S.A. Elosua, Cordoba Province. Cultivar. Seed.

PI 533691 **donor id:** 870606-03. **origin:** Spain. **local name:** Lenteja Verdina. **collected:** June 6, 1987. **locality:** Seed purchased in Supermercado Jumbo, Madrid. **remarks:** Seeds small. The coat black speckled. Cotyledons yellow. Originally from Leon region of northern Spain. Cultivated. Seed.

PI 533692 **donor id:** 870608-01. **origin:** Spain. **cultivar:** CASTELLANA. **collected:** June 8, 1987. **locality:** Cuenca and Albacete Province. **remarks:** Seeds obtained from Gregorio Fernandez Bailon, Extension Agent in Tarancon, Cuenca Province. Cultivar. Seed.

PI 533693 **donor id:** 870608-02. **origin:** Spain. **cultivar:** VERDINA. **collected:** June 8, 1987. **locality:** Matadeon, Leon Province. **remarks:** Seeds obtained from Gregorio Fernandez Bailon, Extension Agent in Tarancon, Cuenca Province. Cultivar. Seed.

PI 533694 to 533707. *Lupinus albus* L. FABACEAE White lupine

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

- PI 533694 **donor id:** 870601-30. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba. **origin institute id:** No. 267. **collected:** June 1, 1987. Cultivated. Seed.
- PI 533695 **donor id:** 870601-31. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba. **origin institute id:** No. 269. **collected:** June 1, 1987. Cultivated. Seed.
- PI 533696 **donor id:** 870601-41. **origin:** Soviet Union. **origin institute:** VIR, 44 Herzen Street, Leningrad. **origin institute id:** VIR 2603. **collected:** June 1, 1987. **other id:** No. 282. **locality:** Druzba, Ukrania. **remarks:** Obtained from collection of Servicio de Investigaciones Agrarias, Cordoba. Cultivated. Seed.
- PI 533697 **donor id:** 870601-43. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba. **origin institute id:** No. 530. **collected:** June 1, 1987. Cultivated. Seed.
- PI 533698 **donor id:** 870601-45. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba. **origin institute id:** No. 544. **collected:** June 1, 1987. Cultivated. Seed.
- PI 533699 **donor id:** 870601-47. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba. **origin institute id:** No. 556. **collected:** June 1, 1987. Cultivated. Seed.
- PI 533700 **donor id:** 870601-48. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba. **origin institute id:** No. 558. **collected:** June 1, 1987. Cultivated. Seed.
- PI 533701 **donor id:** 870601-54. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba. **origin institute id:** No. 571. **collected:** June 1, 1987. **remarks:** Flowers early. Cultivated. Seed.
- PI 533702 **donor id:** 870601-57. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba. **origin institute id:** No. 576. **collected:** June 1, 1987. Cultivated. Seed.

PI 533694 to 533707-continued

PI 533703 donor id: 870601-62. origin: Spain. origin institute: Servicio de Investigaciones Agrarias, Cordoba. origin institute id: No. 584. collected: June 1, 1987. Cultivated. Seed.

PI 533704 donor id: 870601-64. origin: Spain. origin institute: Servicio de Investigaciones Agrarias, Cordoba. origin institute id: R-6002, NORTo 486. collected: June 1, 1987. Cultivated. Seed.

PI 533705 donor id: 870601-65. origin: Spain. origin institute: Servicio de Investigaciones Agrarias, Cordoba. origin institute id: R-6019, NORTo 484. collected: June 1, 1987. Cultivated. Seed.

PI 533706 donor id: 870604-03. origin: Spain. origin institute: Dept. of Genetica, Escuela Tecnica, Superior de Ingenieros Agronomos, Univ. de Cordoba, Cordoba. origin institute id: No. 47. collected: June 1, 1987. locality: Huelva. remarks: Seeds obtained from Dr. L.M. Martin collection. Cultivated. Seed.

PI 533707 donor id: 870604-06. origin: Spain. origin institute: Dept. of Genetica, Escuela Tecnica, Superior de Ingenieros Agronomos, Univ. de Cordoba, Cordoba. origin institute id: No. 175. collected: June 1, 1987. locality: Farajan, Malaga. Cultivated. Seed.

PI 533708. *Lupinus angustifolius* L. FABACEAE European blue lupine

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

donor id: 870601-68. origin: Spain. origin institute: Servicio de Investigaciones Agrarias, Cordoba. origin institute id: No. 53. collected: June 1, 1987. Cultivated. Seed.

PI 533709 to 533710. *Lupinus hispanicus* Boiss. & Reuter FABACEAE

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

PI 533709 donor id: 870601-72. origin: Spain. origin institute: Servicio de Investigaciones Agrarias, Cordoba. origin institute id: No. 1. collected: June 1, 1987. Cultivated. Seed.

PI 533709 to 533710-continued

PI 533710 donor id: 870601-78. origin: Spain. origin institute: Servicio de Investigaciones Agrarias, Cordoba. origin institute id: No. 11. collected: June 1, 1987. Cultivated. Seed.

PI 533711 to 533713. *Lupinus luteus* L. FABACEAE Yellow lupine

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

PI 533711 donor id: 870601-86. origin: Spain. origin institute: Servicio de Investigaciones Agrarias, Cardoba. origin institute id: No. 8. collected: June 1, 1987. Cultivated. Seed.

PI 533712 donor id: 870601-87. origin: Spain. origin institute: Servicio de Investigaciones Agrarias, Cardoba. origin institute id: No. 20. collected: June 1, 1987. Cultivated. Seed.

PI 533713 donor id: 870601-88. origin: Soviet Union. collected: June 1, 1987. locality: Byelorussia, SSR. remarks: Seeds obtained from collection from Servicio de investigacines Agrarias, Cordoba. ID 47. Cultivated. Seed.

PI 533714. *Lupinus* sp. FABACEAE

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

donor id: 870529-02. origin: Soviet Union. origin institute: Servicio de Investigaciones Agrarias, Cordoba. collected: June 1, 1987. elevation: 120m. remarks: Collected from several plants. Cultivated. Seed.

PI 533715 to 533721. *Papaver rhoeas* L. PAPAVERACEAE Corn poppy

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

PI 533715 donor id: 870520-01. origin: Spain. local name: Amapola. collected: May 22, 1987. locality: Roadside, Servicio de Investigaciones Agrarias, Cordoba, Cordoba Province. elevation: 120m. remarks: Flowers red. Wild. Seed.

PI 533715 to 533721-continued

- PI 533716 donor id: 870523-06,07. origin: Spain. collected: May 23, 1987. locality: Roadside, edge of wheat field. Road from Montilla to Llanos del Espinar, Sierras de Montilla. elevation: 350-450m. remarks: Flowers red. Wild. Seed.
- PI 533717 donor id: 870523-08. origin: Spain. collected: May 23, 1987. locality: Roadside, edge of wheat field, near Montilla. elevation: 350m. remarks: Flowers orange. Capsules larger. Wild. Seed.
- PI 533718 donor id: 870525-02. origin: Spain. collected: May 25, 1987. locality: Roadside, 5km to Bujalance on road from Rio del Castro, Cordoba Province. elevation: 150m. Wild. Seed.
- PI 533719 donor id: 870530-07. origin: Spain. collected: May 30, 1987. locality: Olive grove, within 200m of Washington Irving Hotel, next to Generalife at the La Albambra, Granada. elevation: 900m. remarks: Collected capsules from two plants. Wild. Seed.
- PI 533720 donor id: 870603-08. origin: Spain. collected: June 3, 1987. locality: Cortijo Tomejil Experiment station for Servicio de Investigaciones Agrarias, between Carmona and Marchena, Sevilla Province. elevation: 100m. remarks: Seeds collected from several plants. Wild. Seed.
- PI 533721 donor id: 870605(07)-01. origin: Spain. collected: June 5, 1987. locality: Weed near wheat field, 30-81km from Madrid, Finca El Encin at Alcala de Henares and Segovia. elevation: 500m. remarks: Seeds collected from a few plants, from two sites. Wild. Seed.

PI 533722 to 533723. *Papaver somniferum* L. PAPAVERACEAE Opium poppy

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

- PI 533722 donor id: 870522-03. origin: Spain. cultivar: APALO. local name: Adormidera. collected: May 22, 1987. locality: Cordoba Province. elevation: 120m. restricted: NARC. Cultivar. Seed.
- PI 533723 donor id: 870523-05. origin: Spain. collected: May 23, 1987. locality: Commercial field, within 2km of Montilla, Cordoba Province. elevation: 300m. restricted: NARC. Cultivated. Seed.

PI 533724. *Vicia ervilia* (L.) Willd. FABACEAE Bitter vetch

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

donor id: 870608-12. **origin:** Spain. **collected:** June 8, 1987. **locality:** Research plots, near Ucles. **remarks:** Pods green. Seeds obtained from Gregorio Fernandez Bailon, Extension Agent in Tarancon, Cuenca Province. Mixed collection with *Lathyrus cicera*. Cultivated. Seed.

PI 533725 to 533737. *Vicia faba* L. FABACEAE Broadbean

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

PI 533725 **donor id:** 870521-01. **origin:** Spain. **collected:** May 21, 1987. **locality:** Commercial field, Finca Guijarillo near Santaella, Cordoba Province. **elevation:** 250m. **remarks:** Protabon 69 broadbeans. Seeds small. Cultivated. Seed.

PI 533726 **donor id:** 870522-04. **origin:** Spain. **collected:** May 22, 1987. **locality:** Herbicide plots, Servicio de Investigaciones Agrarias Cordoba, Cordoba Province. **elevation:** 120m. Cultivated. Seed.

PI 533727 **donor id:** 870523-10. **origin:** Spain. **collected:** May 23, 1987. **locality:** Farmers field, 3km S of Montilla, Cordoba Province. **elevation:** 300m. **remarks:** Seeds small. Field heavily infected by Broomrape (*Orobanche crenata*). Cultivated. Seed.

PI 533728 **donor id:** 870523-12. **origin:** Spain. **collected:** May 23, 1987. **locality:** Vicinity of Montilla. **elevation:** 300m. **remarks:** Pods long, seeds large, obtained from Mr. Antonio Trapero. Cultivated. Seed.

PI 533729 **donor id:** 870525-01. **origin:** Spain. **collected:** May 25, 1987. **locality:** Small garden plot, La Finca Jufer, 10km S of Cordoba, Cordoba Province. **elevation:** 150m. **remarks:** Pods long. Seeds large. Cultivated. Seed.

PI 533730 **donor id:** 870525-08. **origin:** Spain. **collected:** May 25, 1987. **locality:** Field, 10km W of Bujalance on Old Cordoba road, Cordoba Province. **elevation:** 200m. **remarks:** Seeds small. Field heavily infected with *Orobanche crenata*. Cultivated. Seed.

PI 533725 to 533737-continued

- PI 533731 donor id: 870525-15. origin: Spain. collected: May 25, 1987. elevation: 200m. remarks: Seeds large, obtained from S.A. Miluma, Caneti de Lastorres, Cordoba Province. Mixed with *Vicia sativa*. Cultivated. Seed.
- PI 533732 donor id: 870525-16. origin: Spain. collected: May 25, 1987. elevation: 200m. remarks: Seeds large, obtained from S.A. Miluma, Caneti de Lastorres, Cordoba Province. Cultivated. Seed.
- PI 533733 donor id: 870525-17. origin: Spain. collected: May 25, 1987. elevation: 200m. remarks: Seeds small, obtained from S.A. Miluma, Caneti de Lastorres, Cordoba Province. Cultivated. Seed.
- PI 533734 donor id: 870525-18. origin: Spain. collected: May 25, 1987. elevation: 200m. remarks: Seeds small-medium, black, obtained from S.A. Miluma, Caneti de Lastorres, Cordoba Province. Cultivated. Seed.
- PI 533735 donor id: 870526-01. origin: Spain. collected: May 26, 1987. locality: Planting, Servicio de Investigaciones Agrarias, Cordoba. elevation: 120m. remarks: Pods and seeds small. Cultivated. Seed.
- PI 533736 donor id: 870530-01. origin: Spain. collected: May 30, 1987. locality: Farmers planting, next to Generalife, La Alhambra, Granada. elevation: 900m. remarks: Plants long-podded. Seeds large. Cultivated. Seed.
- PI 533737 donor id: 870608-03. origin: Spain. collected: June 8, 1987. locality: Southern area. remarks: Seeds small, obtained from Gregorio Fernandez Bailon, Extension Agent in Tarancon, Cuenca Province. Cultivated. Seed.

PI 533738 to 533740. *Vicia sativa* L. FABACEAE Common vetch

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. Received January 23, 1989.

- PI 533738 donor id: 870525-14. origin: Spain. collected: May 25, 1987. remarks: Seeds obtained from S.A. Miluma, Cante de las Torres, Cordoba Province. Used as animal feed. Cultivated. Seed.
- PI 533739 donor id: 870608-04. origin: Spain. collected: June 8, 1987. remarks: Seeds obtained from Gregorio Fernandez Bailon, Extension Agent, Tarancon, Cuenca Province. Cultivated. Seed.

PI 533738 to 533740-continued

PI 533740 **donor id:** 870608-21. **origin:** Spain. **collected:** June 87, 1987. **locality:** Commercial planting, near Almendros, Cuenca Province. **Cultivated. Seed.**

PI 533741 to 533744. *Vicia* sp. FABACEAE

Donated by: Kaiser, W.J., Western Regional PI Station, Washington State University, Pullman, Washington, United States. **Received** January 23, 1989.

PI 533741 **donor id:** 870523-03. **origin:** Spain. **collected:** May 23, 1987. **locality:** Roadside, road from Montilla to Llanos del Espinar in the Sierras de Montilla. **elevation:** 450m. **remarks:** Plants viny. Pods narrow. **Cultivated. Seed.**

PI 533742 **donor id:** 870530-04. **origin:** Spain. **collected:** May 30, 1987. **locality:** Edge of broad bean planting, next to the Generalife at the La Alhambra, Granada. **remarks:** Plants viny. Pods broad. **Cultivated. Seed.**

PI 533743 **donor id:** 870601-103. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba Province. **origin institute id:** AO-2 (Multiplication 83/84). **collected:** June 1, 1987. **Cultivated. Seed.**

PI 533744 **donor id:** 870601-104. **origin:** Spain. **origin institute:** Servicio de Investigaciones Agrarias, Cordoba Province. **origin institute id:** AO-3 (Multiplication 83/84). **collected:** June 1, 1987. **Cultivated. Seed.**

PI 533745 to 533807. *Sorghum bicolor* (L.) Moench POACEAE Sorghum

Donated by: Rosenow, D.T., Agriculture Research & Extension Center, Texas A&M University, Route 3, Box 219, Lubbock, Texas, United States. **remarks:** Cooperative Sorghum Conversion Program conducted by the Texas Agric. Exp. Station and the Mayaguez Tropical Agric. Res. Station, USDA-ARS. Designations include IS (World Collection No.), C (converted) and preconversion accession no. (SC), origin, other identifiers, local names or number. **Received** December 16, 1987.

PI 533745 **donor id:** IS 1022C. **origin:** India. **pedigree:** SC 105/3/4-dwarf Martin B line/SC 105/2/SC 105*2/4/SC 105. **local name:** IC4258(T.3). **other id:** PI 246697 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1022C. SC 105. Released in 1970. **RACE** Group 41: Durra. **Breeding Material. Seed.**

PI 533745 to 533807-continued

- PI 533746 **donor id:** IS 1056C. **origin:** India. **pedigree:** SC 233/3/4-dwarf Martin B line/SC 233/2/SC 233*2/4/SC 233. **local name:** C.10-2. **other id:** PI 291209 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1056C. SC 233. Released in 1970. **RACE Group** 41: Durra. **Breeding Material.** Seed.
- PI 533747 **donor id:** IS 1112C. **origin:** India. **pedigree:** SC 193/3/4-dwarf Martin B line/SC 193/2/SC 193*2/4/SC 193. **local name:** Nilwa. **other id:** PI 291215 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1112C. SC 193. Released in 1970. **RACE Group** 41-50: Durra-Sub. **Breeding Material.** Seed.
- PI 533748 **donor id:** IS 1116C. **origin:** India. **pedigree:** SC 195/3/4-dwarf Martin B line/SC 195/2/SC 195*2/4/SC 195. **local name:** Nauhatta. **other id:** PI 291218 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1116C. SC 195. Released in 1970. **RACE Group** 1:Roxburghii. **Breeding Material.** Seed.
- PI 533749 **donor id:** IS 1201C. **origin:** Africa. **pedigree:** SC 258/3/4-dwarf Martin B line/SC 258/2/SC 258*2/4/SC 258. **local name:** AS9117. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1201C. SC 258. Released in 1970. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533750 **donor id:** IS 1598C. **origin:** India. **pedigree:** SC 214/3/4-dwarf Martin B line/SC 214/2/SC 214*2/4/SC 214. **local name:** K.3 Perimanjial Irungu Cholan. **other id:** PI 291239 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1598C. SC 214. Released in 1970. **RACE Group** 12:Dochna. **Breeding Material.** Seed.
- PI 533751 **donor id:** IS 2266C. **origin:** Sudan. **pedigree:** SC 93/3/4-dwarf Martin B line/SC 93/2/SC 93*2/4/SC 93. **local name:** Birgalli Ahmar. **other id:** PI 217684 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2266C. SC 93. Released in 1970. **RACE Group** 33:Caudatum. **Breeding Material.** Seed.

PI 533745 to 533807-continued

- PI 533752 **donor id:** IS 2403C. **origin:** South Africa. **pedigree:** SC 103/3/4-dwarf Martin B line/SC 103/2/SC 103*2/4/SC 103. **local name:** 54.K.94(Witchweed res.). **other id:** PI 239441 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2403C. SC 103. Released in 1970. **RACE Group** 33:Caudatum. Breeding Material. Seed.
- PI 533753 **donor id:** IS 2482C. **origin:** Sudan. **pedigree:** SC 311/3/4-dwarf Martin B line/SC 311/2/SC 311*2/4/SC 311. **other id:** MN 732 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2482C. SC 311. Released in 1970. **RACE Group** 12:Dochna. Breeding Material. Seed.
- PI 533754 **donor id:** IS 2483C. **origin:** Sudan. **pedigree:** SC 309/3/4-dwarf Martin B line/SC 309/2/SC 309*2/4/SC 309. **other id:** MN 733 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2483C. SC 309. Released in 1970. **RACE Group** 12:Dochna. Breeding Material. Seed.
- PI 533755 **donor id:** IS 2541C. **origin:** Sudan. **pedigree:** SC 55/3/4-dwarf Martin B line/SC 55/2/SC 55*2/4/SC 55. **local name:** Feterita Gondal. **other id:** PI 152662 (preconverted). **other id:** MN 794 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2541C. SC 55. Released in 1970. **RACE Group** 33:Caudatum. Breeding Material. Seed.
- PI 533756 **donor id:** IS 2549C. **origin:** Ethiopia. **pedigree:** SC 228/3/4-dwarf Martin B line/SC 228/2/SC 228*2/4/SC 228. **local name:** Hegari Makwar. **other id:** MN 809 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2549C. SC 228. Released in 1970. **RACE Group** 39(1):Zerazera. Breeding Material. Seed.
- PI 533757 **donor id:** IS 2573C. **origin:** Sudan. **pedigree:** SC 64/3/4-dwarf Martin B line/SC 64/2/SC 64*2/4/SC 64. **local name:** Monshal. **other id:** PI 152736 (preconverted). **other id:** MN 864 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2573C. SC 64. Released in 1970. **RACE Group** 38:Caud-Kafir. Breeding Material. Seed.

PI 533745 to 533807-continued

- PI 533758 **donor id:** IS 2579C. **origin:** Sudan. **pedigree:** SC 423/3/4-dwarf Martin B line/SC 423/2/SC 423*2/4/SC 423. **other id:** MN 879 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2579C. SC 423. Released in 1970. **RACE** Group 39(1):Zerazera. Breeding Material. Seed.
- PI 533759 **donor id:** IS 2801C. **origin:** Zimbabwe. **pedigree:** SC 118/3/4-dwarf Martin B line/SC 118/2/SC 118*2/4/SC 118. **local name:** Mugbash 56/56. **other id:** PI 267459 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2801C. SC 118. Released in 1970. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533760 **donor id:** IS 2816C. **origin:** Zimbabwe. **pedigree:** SC 120/3/4-dwarf Martin B line/SC 120/2/SC 120*2/4/SC 120. **local name:** Zera Zera White. **other id:** PI 267474 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2816C. SC 120. Released in 1970. **RACE** Group 39(1):Zerazera. Breeding Material. Seed.
- PI 533761 **donor id:** IS 3063C. **origin:** Ethiopia. **pedigree:** SC 333/3/4-dwarf Martin B line/SC 333/2/SC 333*2/4/SC 333. **locality:** Near Assela Road. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 3063C. SC 333. Released in 1970. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533762 **donor id:** IS 3579C. **origin:** Sudan. **pedigree:** SC 425/3/4-dwarf Martin B line/SC 425/2/SC 425*2/4/SC 425. **local name:** Tambroro 7. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 3579C. SC 425. Released in 1970. **RACE** Group 40:Caud-Durra. Breeding Material. Seed.
- PI 533763 **donor id:** IS 3614C. **origin:** Nigeria. **pedigree:** SC 278/3/4-dwarf Martin B line/SC 278/2/SC 278*2/4/SC 278. **local name:** BE 13. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 3614C. SC 278. Released in 1970. **RACE** Group 3:Conspicuum. Breeding Material. Seed.
- PI 533764 **donor id:** IS 5322C. **origin:** India. **pedigree:** SC 250/3/4-dwarf Martin B line/SC 250/2/SC 250*2/4/SC 250. **local name:** Roxi Barikel. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5322C. SC 250. Released in 1970. **RACE** Group 1:Roxburghii. Breeding Material. Seed.

PI 533745 to 533807-continued

- PI 533765 **donor id:** IS 5821C. **origin:** India. **pedigree:** SC 253/3/4-dwarf Martin B line/SC 253/2/SC 253*2/4/SC 253. **local name:** Deori Badri. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5821C. SC 253. Released in 1970. **RACE Group** 1:Roxburghii. **Breeding Material.** Seed.
- PI 533766 **donor id:** IS 6705C. **origin:** Burkina Faso. **pedigree:** SC 265/3/4-dwarf Martin B line/SC 265/2/SC 265*2/4/SC 265. **local name:** No. 4 Hadoui. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 6705C. SC 265. Released in 1970. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533767 **donor id:** IS 6729C. **origin:** Burkina Faso. **pedigree:** SC 284/3/4-dwarf Martin B line/SC 284/2/SC 284*2/4/SC 284. **local name:** 105 Nazongliala. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 6729C. SC 284. Released in 1970. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533768 **donor id:** IS 7007C. **origin:** Sudan. **pedigree:** SC 268/3/4-dwarf Martin B line/SC 268/2/SC 268*2/4/SC 268. **local name:** 428 El Safra. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7007C. SC 268. Released in 1970. **RACE Group** 3(1):Consp-Nig. **Breeding Material.** Seed.
- PI 533769 **donor id:** IS 7064C. **origin:** Sudan. **pedigree:** SC 420/3/4-dwarf Martin B line/SC 420/2/SC 420*2/4/SC 420. **local name:** 290 Feterita Shendi 2. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7064C. SC 420. Released in 1970. **RACE Group** 38:Caud-Kafir. **Breeding Material.** Seed.
- PI 533770 **donor id:** IS 7229C. **origin:** Nigeria. **pedigree:** SC 392/3/4-dwarf Martin B line/SC 392/2/SC 392*2/4/SC 392. **local name:** FC Standard. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7229C. SC 392. Released in 1970. **RACE Group** 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533771 **donor id:** IS 7248C. **origin:** Nigeria. **pedigree:** SC 366/3/4-dwarf Martin B line/SC 366/2/SC 366*2/4/SC 366. **local name:** Agyou. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7248C. SC 366. Released in 1970. **RACE Group** 34:Caud-Kaura. **Breeding Material.** Seed.

PI 533745 to 533807-continued

- PI 533772 **donor id:** IS 7273C. **origin:** Nigeria. **pedigree:** SC 271/3/4-dwarf Martin B line/SC 271/2/SC 271*2/4/SC 271. **local name:** AD 9. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7273C. SC 271. Released in 1970. **RACE Group** 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533773 **donor id:** IS 7274C. **origin:** Nigeria. **pedigree:** SC 272/3/4-dwarf Martin B line/SC 272/2/SC 272*2/4/SC 272. **local name:** AD 10. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7274C. SC 272. Released in 1970. **RACE Group** 3:Caud-Kaura. **Breeding Material.** Seed.
- PI 533774 **donor id:** IS 7382C. **origin:** Nigeria. **pedigree:** SC 344/3/4-dwarf Martin B line/SC 344/2/SC 344*2/4/SC 344. **local name:** BA 26. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7382C. SC 344. Released in 1970. **RACE Group** 33:Caudatum. **Breeding Material.** Seed.
- PI 533775 **donor id:** IS 7384C. **origin:** Nigeria. **pedigree:** SC 362/3/4-dwarf Martin B line/SC 362/2/SC 362*2/4/SC 362. **local name:** BA 29. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7384C. SC 362. Released in 1970. **RACE Group** 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533776 **donor id:** IS 7435C. **origin:** Nigeria. **pedigree:** SC 370/3/4-dwarf Martin B line/SC 370/2/SC 370*2/4/SC 370. **local name:** KA 3. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7435C. SC 370. Released in 1970. **RACE Group** 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533777 **donor id:** IS 7498C. **origin:** Nigeria. **pedigree:** SC 353/3/4-dwarf Martin B line/SC 353/2/SC 353*2/4/SC 353. **local name:** KO 15. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7498C. SC 353. Released in 1970. **RACE Group** 40(1):Caud-Consp. **Breeding Material.** Seed.
- PI 533778 **donor id:** IS 7502C. **origin:** Nigeria. **pedigree:** SC 374/3/4-dwarf Martin B line/SC 374/2/SC 374*2/4/SC 374. **local name:** KO 19. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7502C. SC 374. Released in 1970. **RACE Group** 34:Caud-Kaura. **Breeding Material.** Seed.

PI 533745 to 533807-continued

- PI 533779 **donor id:** IS 7506C. **origin:** Nigeria. **pedigree:** SC 407/3/4-dwarf Martin B line/SC 407/2/SC 407*2/4/SC 407. **local name:** KO 23. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7506C. SC 407. Released in 1970. **RACE Group** 35:Caud-Guin. **Breeding Material.** Seed.
- PI 533780 **donor id:** IS 7534C. **origin:** Nigeria. **pedigree:** SC 289/3/4-dwarf Martin B line/SC 289/2/SC 289*2/4/SC 289. **local name:** KO 58. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7534C. SC 289. Released in 1970. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533781 **donor id:** IS 7720C. **origin:** Nigeria. **pedigree:** SC 380/3/4-dwarf Martin B line/SC 380/2/SC 380*2/4/SC 380. **local name:** ZA 2. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7720C. SC 380. Released in 1970. **RACE Group** 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533782 **donor id:** IS 7733C. **origin:** Nigeria. **pedigree:** SC 292/3/4-dwarf Martin B line/SC 292/2/SC 292*2/4/SC 292. **local name:** ZA 16. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7733C. SC 292. Released in 1970. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533783 **donor id:** IS 7786C. **origin:** Nigeria. **pedigree:** SC 293/3/4-dwarf Martin B line/SC 293/2/SC 293*2/4/SC 293. **local name:** ZA 77. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7786C. SC 293. Released in 1970. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533784 **donor id:** IS 7909C. **origin:** Nigeria. **pedigree:** SC 282/3/4-dwarf Martin B line/SC 282/2/SC 282*2/4/SC 282. **local name:** SO 3. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7909C. SC 282. Released in 1970. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533785 **donor id:** IS 7920C. **origin:** Nigeria. **pedigree:** SC 299/3/4-dwarf Martin B line/SC 299/2/SC 299*2/4/SC 299. **local name:** SO 16. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 7920C. SC 299. Released in 1970. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.

PI 533745 to 533807-continued

- PI 533786 donor id: IS 7994C. origin: Nigeria. pedigree: SC
281/3/4-dwarf Martin B line/SC 281/2/SC 281*2/4/SC 281.
local name: SO 101. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 7994C. SC 281. Released in 1970. RACE Group
3:Conspicuum. Breeding Material. Seed.
- PI 533787 donor id: IS 12565C. origin: Sudan. pedigree: SC
50/3/4-dwarf Martin B line/SC 50/2/SC 50*2/4/SC 50.
local name: Belig White. other id: PI 152607
(preconverted). other id: MN 746 (preconverted).
remarks: Plants short-statured, generally 4- or 3- dwarf
height. Photoperiod insensitive. IS 12565C. SC 50.
Released in 1970. RACE Group 40(1):Caud-Consp. Breeding
Material. Seed.
- PI 533788 donor id: IS 12567C. origin: Sudan. pedigree: SC
53/3/4-dwarf Martin B line/SC 53/2/SC 53*2/4/SC 53.
other id: PI 152636 (preconverted). other id: MN 775
(preconverted). remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 12567C. SC 53. Released in 1970. RACE Group
47:Durra-Nig. Breeding Material. Seed.
- PI 533789 donor id: IS 12569C. origin: Sudan. pedigree: SC
57/3/4-dwarf Martin B line/SC 57/2/SC 57*2/4/SC 57.
local name: Kodilib. other id: PI 152703 (preconverted).
other id: MN 831 (preconverted). remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 12569C. SC 57. Released in
1970. RACE Group 40(1):Caud-Consp. Breeding Material.
Seed.
- PI 533790 donor id: IS 12603C. origin: Nigeria. pedigree: SC
98/3/4-dwarf Martin B line/SC 98/2/SC 98*2/4/SC 98.
local name: Mori Red Glume. other id: PI 221625
(preconverted). remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 12603C. SC 98. Released in 1970. RACE Group
3:Conspicuum. Breeding Material. Seed.
- PI 533791 donor id: IS 12605C. origin: Nigeria. pedigree: SC
100/3/4-dwarf Martin B line/SC 100/2/SC 100*2/4/SC 100.
local name: Mur Ban. other id: PI 221657 (preconverted).
remarks: Plants short-statured, generally 4- or 3- dwarf
height. Photoperiod insensitive. IS 12605C. SC 100.
Released in 1970. RACE Group 3:Conspicuum. Breeding
Material. Seed.

PI 533745 to 533807-continued

- PI 533792 donor id: IS 12608C. origin: Ethiopia. pedigree: SC 108/3/4-dwarf Martin B line/SC 108/2/SC 108*2/4/SC 108. local name: No. 1 Gambela. other id: PI 257595 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12608C. SC 108. Released in 1970. RACE Group 39(1):Zerazera. Breeding Material. Seed.
- PI 533793 donor id: IS 12609C. origin: Ethiopia. pedigree: SC 109/3/4-dwarf Martin B line/SC 109/2/SC 109*2/4/SC 109. local name: No. 4 Gambela. other id: PI 257598 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12609C. SC 109. Released in 1970. RACE Group 39(1):Zerazera. Breeding Material. Seed.
- PI 533794 donor id: IS 12610C. origin: Ethiopia. pedigree: SC 110/3/4-dwarf Martin B line/SC 110/2/SC 110*2/4/SC 110. local name: No. 5 Gambela. other id: PI 257599 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12610C. SC 110. Released in 1970. RACE Group 39(1):Zerazera. Breeding Material. Seed.
- PI 533795 donor id: IS 12617C. origin: Ethiopia. pedigree: SC 126/3/4-dwarf Martin B line/SC 126/2/SC 126*2/4/SC 126. other id: PI 276772 (preconverted). other id: SA 2290. remarks: Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12617C. SC 126. Released in 1970. RACE Group 41-50:Durra-Sub. Breeding Material. Seed.
- PI 533796 donor id: IS 12622C. origin: Ethiopia. pedigree: SC 131/3/4-dwarf Martin B line/SC 131/2/SC 131*2/4/SC 131. other id: PI 276782 (preconverted). other id: SA 2300. remarks: Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12622C. SC 131. Released in 1970. RACE Group 45:Durra-Dochna. Breeding Material. Seed.
- PI 533797 donor id: IS 12645C. origin: Ethiopia. pedigree: SC 154/3/4-dwarf Martin B line/SC 154/2/SC 154*2/4/SC 154. other id: PI 276815 (preconverted). other id: SA 2333 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12645C. SC 154. Released in 1970. RACE Group 44:Durra-Bicolor. Breeding Material. Seed.

PI 533745 to 533807-continued

- PI 533798 **donor id:** IS 12662C. **origin:** Ethiopia. **pedigree:** SC 171/3/4-dwarf Martin B line/SC 171/2/SC 171*2/4/SC 171. **other id:** PI 276838 (preconverted). **other id:** SA 2356 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12662C. SC 171. Released in 1970. **RACE Group** 39:Caud-Nig. **Breeding Material.** Seed.
- PI 533799 **donor id:** IS 12664C. **origin:** Ethiopia. **pedigree:** SC 173/3/4-dwarf Martin B line/SC 173/2/SC 173*2/4/SC 173. **other id:** PI 276840 (preconverted). **other id:** SA 2358 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12664C. SC 173. Released in 1970. **RACE Group** 39(1):Zerazera. **Breeding Material.** Seed.
- PI 533800 **donor id:** IS 12666C. **origin:** Ethiopia. **pedigree:** SC 175/3/R TX 412 (or SA 3105)/SC 175/2/SC 175*2/4/SC 175. **other id:** PI 276842 (preconverted). **other id:** SA 2360 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12666C. SC 175. Released in 1970. **RACE Group** 39(1):Zerazera. **Breeding Material.** Seed.
- PI 533801 **donor id:** IS 12673C. **origin:** Ethiopia. **pedigree:** SC 182/3/R TX 412 (or SA 3105)/SC 182/2/SC 182*2/4/SC 182. **local name:** Eth. Sel. #3. **other id:** PI 276855 (preconverted). **other id:** SA 2373 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12673C. SC 182. Released in 1970. **RACE Group** 39(1):Zerazera. **Breeding Material.** Seed.
- PI 533802 **donor id:** IS 12677C. **origin:** Nigeria. **pedigree:** SC 186/3/4-dwarf Martin B line/SC 186/2/SC 186*2/4/SC 186. **local name:** BO 41. **other id:** PI 285041 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12677C. SC 186. Released in 1970. **RACE Group** 40:Daud-Durra. **Breeding Material.** Seed.
- PI 533803 **donor id:** IS 12678C. **origin:** Nigeria. **pedigree:** SC 187/3/4-dwarf Martin B line/SC 187/2/SC 187*2/4/SC 187. **local name:** KO 8. **other id:** PI 285042 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12678C. SC 187. Released in 1970. **RACE Group** 40:Caud-Durra. **Breeding Material.** Seed.

PI 533745 to 533807-continued

- PI 533804 **donor id:** IS 12679C. **origin:** Nigeria. **pedigree:** SC 188/3/4-dwarf Martin B line/SC 188/2/SC 188*2/4/SC 188. **local name:** KO 25. **other id:** PI 285043. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. Cytoplasm 4-dwarf Martin B line IS 12679C. SC 188. Released in 1970. **RACE** Group 40:Caud-Durra. Breeding Material. Seed.
- PI 533805 **donor id:** IS 12682C. **origin:** India. **pedigree:** SC 220/3/4-dwarf Martin B line/SC 220/2/SC 220*2/4/SC 220. **other id:** CI 1082. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12682C. SC 220. Released in 1970 1970. Seeds white, yellow base. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 533806 **donor id:** IS 12683C. **origin:** India. **pedigree:** SC 221/3/4-dwarf Martin B line/SC 221/2/SC 221*2/4/SC 221. **other id:** CI 1084. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12683C. SC 221. Released in 1970. Seeds white, red base. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 533807 **donor id:** IS 12684C. **origin:** Nigeria. **pedigree:** SC 223/3/4-dwarf Martin B line/SC 223/2/SC 223*2/4/SC 223. **other id:** SA 1995. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 12684C. SC 223. Released in 1979. Bankum tall Heg. type. **RACE** Group 38:Caud-Kafir. Breeding Material. Seed.

PI 533808 to 533927. Sorghum bicolor (L.) Moench POACEAE Sorghum

Donated by: Rosenow, D.T., Agriculture Research & Extension Center, Texas A&M University, Route 3, Box 219, Lubbock, Texas, United States. **remarks:** Cooperative Sorghum Conversion Program conducted by the Texas Agric. Exp. Station and the Mayaguez Tropical Agric. Res. Station, USDA-ARS. Designations include IS (World Collection No.), C (converted) and preconversion accession no. (SC), origin, other identifiers, local names or number. Received December 16, 1987.

- PI 533808 **donor id:** IS 530C. **origin:** Nigeria. **pedigree:** SC 229/3/4-dwarf Martin B line/SC 229/2/SC 229*2/4/SC 229. **local name:** Kaura. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 530C. SC 229. Released in 1974. **RACE** Group 34:Caud-Kaura. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533809 **donor id:** IS 1047C. **origin:** India. **pedigree:** SC 230/3/R TX 412 (or SA 3105)/SC 230/2/SC 230*2/4/SC 230. **local name:** Co. 18, IC 3782. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1047C. SC 230. Released in 1974. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 533810 **donor id:** IS 1121C. **origin:** India. **pedigree:** SC 199/3/4-dwarf Martin B line/SC 199/2/SC 199*2/4/SC 199. **local name:** Karad 2-7-11. **other id:** PI 291222 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1121C. SC 199. Released in 1974. **RACE Group** 46(1):Nandyal. **Breeding Material.** Seed.
- PI 533811 **donor id:** IS 1133C. **origin:** India. **pedigree:** SC 202/3/4-dwarf Martin B line/SC 202/2/SC 202*2/4/SC 202. **local name:** N.2 Cherukupatcha Jonna. **other id:** PI 291225 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1133C. SC 202. Released in 1974. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 533812 **donor id:** IS 1134C. **origin:** India. **pedigree:** SC 203/3/4-dwarf Martin B line/SC 203/2/SC 203*2/4/SC 203. **local name:** N.3 Cioapatcha Jonna. **other id:** PI 291226 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1134C. SC 203. Released in 1974. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 533813 **donor id:** IS 1139C. **origin:** India. **pedigree:** SC 205/3/R TX 412 (or SA 3105)/SC 1047/2/SC 1139*2/4/SC 205. **local name:** N.8 Oolapatcha Jonna. **other id:** PI 291228 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1139C. SC 205. Released in 1974. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 533814 **donor id:** IS 1140C. **origin:** India. **pedigree:** SC 206/3/4-dwarf Martin B line/SC 206/2/SC 206*2/4/SC 206. **local name:** N.9 Cherukupatcha Jonna. **other id:** PI 291229 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1140C. SC 206. Released in 1974. **RACE Group** 41:Durra. **Breeding Material.** Seed.

PI 533808 to 533927-continued

- PI 533815 **donor id:** IS 1141C. **origin:** India. **pedigree:** SC 207/3/4-dwarf Martin B line/SC 207/2/SC 207*2/4/SC 207. **local name:** N.10 Mungari Patcha Jonna. **other id:** PI 291230 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1141C. SC 207. Released in 1974. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 533816 **donor id:** IS 1143C. **origin:** India. **pedigree:** SC 208/3/R TX 412 (or SA 3105)/SC 208/2/SC 208*2/4/SC 208. **local name:** N.12 Mungari Patcha Jonna. **other id:** PI 291231. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1143C. SC 208. Released in 1974. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 533817 **donor id:** IS 1151C. **origin:** India. **pedigree:** SC 209/3/4-dwarf Martin B line/SC 209/2/SC 209*2/4/SC 209. **local name:** Aispuri. **other id:** PI 291233 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1151C. SC 209. Released in 1974. **RACE** Group 49:Cernuum. Breeding Material. Seed.
- PI 533818 **donor id:** IS 1159C. **origin:** Nigeria. **pedigree:** SC 256/3/4-dwarf Martin B line/SC 256/2/SC 256*2/4/SC 256. **local name:** AS4548 TI-2 Yander. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1159C. SC 256. Released in 1974. **RACE** Group 3:Conspicuum. Breeding Material. Seed.
- PI 533819 **donor id:** IS 1166C. **origin:** Zambia. **pedigree:** SC 257/3/4-dwarf Martin B line/SC 257/2/SC 257*2/4/SC 257. **local name:** AS4130 Pande. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1166C. SC 257. Released in 1974. **RACE** Group 3:Conspicuum. Breeding Material. Seed.
- PI 533820 **donor id:** IS 1207C. **origin:** Malawi. **pedigree:** SC 308/3/4-dwarf Martin B line/SC 308/2/SC 308*2/4/SC 308. **local name:** AS6468 Ngala-ya-Bango. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1207C. SC 308. Released in 1974. **RACE** Group 12:Dochna. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533821 **donor id:** IS 1309C. **origin:** Tanzania. **pedigree:** SC 322/3/4-dwarf Martin B line/SC 322/2/SC 322*2/4/SC 322. **local name:** AS4660 Kikuma. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1309C. SC 322. Released in 1974. **RACE** Group 29:Nigricans. **Breeding Material.** Seed.
- PI 533822 **donor id:** IS 1335C. **origin:** Tanzania. **pedigree:** SC 418/3/4-dwarf Martin B line/SC 418/2/SC 418*2/4/SC 418. **local name:** AS4616 Balangira-Mwanza. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1335C. SC 418. Released in 1974. **RACE** Group 38:Caud-Kafir. **Breeding Material.** Seed.
- PI 533823 **donor id:** IS 1526C. **origin:** India. **pedigree:** SC 212/3/4-dwarf Martin B line/SC 212/2/SC 212*2/4/SC 212. **local name:** AS5078 Vellai Cholan. **other id:** PI 291237 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 1526C. SC 212. Released in 1974. **RACE** Group 41:Durra. **Breeding Material.** Seed.
- PI 533824 **donor id:** IS 2169C. **origin:** Nigeria. **pedigree:** SC 331/3/4-dwarf Martin B line/SC 331/2/SC 331*2/4/SC 331. **local name:** Bonkum. **other id:** PI 221662 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2169C. SC 331. Released in 1974. **RACE** Group 32:Nig-Durra. **Breeding Material.** Seed.
- PI 533825 **donor id:** IS 2177C. **origin:** India. **pedigree:** SC 215/3/4-dwarf Martin B line/SC 215/2/SC 215*2/4/SC 215. **local name:** K.2 Cholan. **other id:** PI 291240 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2177C. SC 215. Released in 1974. **RACE** Group 41:Durra. **Breeding Material.** Seed.
- PI 533826 **donor id:** IS 2198C. **origin:** India. **pedigree:** SC 307/3/4-dwarf Martin B line/SC 307/2/SC 307*2/4/SC 307. **local name:** IC6161 Jaglur(K). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2198C. SC 307. Released in 1974. **RACE** Group 12:Dochna. **Breeding Material.** Seed.

PI 533808 to 533927-continued

- PI 533827 **donor id:** IS 2246C. **origin:** India. **pedigree:** SC 216/3/4-dwarf Martin B line/SC 216/2/SC 216*2/4/SC 216. **local name:** Ujjain-6. **other id:** PI 291243 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2246C. SC 216. Released in 1974. **RACE Group** 49:Cernuum. **Breeding Material.** Seed.
- PI 533828 **donor id:** IS 2477C. **origin:** Ethiopia. **pedigree:** SC 226/3/4-dwarf Martin B line/SC 226/2/SC 226*2/4/SC 226. **local name:** Aklamoi Red. **other id:** PI 152588 (preconverted). **other id:** MN 727 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2477C. SC 226. Released in 1974. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 533829 **donor id:** IS 2478C. **origin:** Ethiopia. **pedigree:** SC 227/3/4-dwarf Martin B line/SC 227/2/SC 227*2/4/SC 227. **local name:** Aklamoi White. **other id:** PI 152589(preconverted). **other id:** MN 728 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2478C. SC 227. Released in 1974. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 533830 **donor id:** IS 2501C. **origin:** Sudan. **pedigree:** SC 52/3/4-dwarf Martin B line/SC 52/2/SC 52*2/4/SC 52. **local name:** Culum Brick. **other id:** PI 152615 (preconverted). **other id:** MN 753 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2501C. SC 52. Released in 1974. **RACE Group** 31:Nig-Fet. **Breeding Material.** Seed.
- PI 533831 **donor id:** IS 2508C. **origin:** Sudan. **pedigree:** SC 414/3/4-dwarf Martin B line/SC 414/2/SC 414*2/4/SC 414. **local name:** Deburr. **other id:** PI 152621 (preconverted). **other id:** MN 760 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2508C. SC 414. Released in 1974. **RACE Group** 38:Caud-Kafir. **Breeding Material.** Seed.
- PI 533832 **donor id:** IS 2662C. **origin:** Uganda. **pedigree:** SC 114/3/4-dwarf Martin B line/SC 114/2/SC 114*2/4/SC 114. **local name:** C-25. **other id:** PI 267348 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 2662C. SC 114. Released in 1974. **RACE Group** 39:Caud-Nig. **Breeding Material.** Seed.

PI 533808 to 533927-continued

- PI 533833 donor id: IS 2757C. origin: Uganda. pedigree: SC
319/3/4-dwarf Martin B line/SC 319/2/SC 319*2/4/SC 319.
local name: Sorghum Soroti. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 2757C. SC 319. Released in
1974. RACE Group 39:Doch-Nig. Breeding Material. Seed.
- PI 533834 donor id: IS 3071C. origin: Sudan. pedigree: SC
237/3/4-dwarf Martin B line/SC 237/2/SC 237*2/4/SC 237.
local name: Dobbs. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 3071C. SC 237. Released in 1974. RACE Group
31(1):Dobbs. Breeding Material. Seed.
- PI 533835 donor id: IS 3464C. origin: Sudan. pedigree: SC
405/3/4-dwarf Martin B line/SC 405/2/SC 405*2/4/SC 405.
local name: Birgalli Ahmar. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 3464C. SC 405. Released in
1974. RACE Group 35:Caud-Guin. Breeding Material.
Seed.
- PI 533836 donor id: IS 3477C. origin: Sudan. pedigree: SC
267/3/4-dwarf Martin B line/SC 267/2/SC 267*2/4/SC 267.
local name: DS3-Fet Abu Direisa. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 3477C. SC 267. Released in
1974. RACE Group 3:Conspicuum. Breeding Material.
Seed.
- PI 533837 donor id: IS 3574C. origin: Sudan. pedigree: SC
239/3/4-dwarf Martin B line/SC 239/2/SC 239*2/4/SC 239.
local name: Zerazera 181. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 3574C. SC 239. Released in
1974. RACE Group 39(1):Zerazeraq. Breeding Material.
Seed.
- PI 533838 donor id: IS 3612C. origin: Nigeria. pedigree: SC
329/3/4-dwarf Martin B line/SC 329/2/SC 329*2/4/SC 329.
local name: BA45 Faria Bonkum. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 3612C. SC 329. Released in
1974. RACE Group 29:Nigricans. Breeding Material.
Seed.
- PI 533839 donor id: IS 3620C. origin: Nigeria. pedigree: SC
303/3/4-dwarf Martin B line/SC 303/2/SC 303*2/4/SC 303.
local name: K037 Camjin. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 3620C. SC 303. Released in 1974. RACE Group
5:Margaretiferum. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533840 donor id: IS 3625C. origin: Nigeria. pedigree: SC
549/3/4-dwarf Martin B line/SC 549/2/SC 549*2/4/SC 549.
local name: ZA10 Mori. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 3625C. SC 549. Released in 1974. RACE Group
3:Conspicuum. Breeding Material. Seed.
- PI 533841 donor id: IS 3627C. origin: Nigeria. pedigree: SC
261/3/4-dwarf Martin B line/SC 261/2/SC 261*2/4/SC 261.
local name: ZA41 Danye. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 3627C. SC 261. Released in 1974. RACE Group
3:Conspicuum. Breeding Material. Seed.
- PI 533842 donor id: IS 3814C. origin: India. pedigree: SC
240/3/4-dwarf Martin B line/SC 240/2/SC 240*2/4/SC 240.
local name: Nandyal. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 3814C. SC 240. Released in 1974. RACE Group
46(1):Nandyal. Breeding Material. Seed.
- PI 533843 donor id: IS 3911C. origin: India. pedigree: SC
241/3/4-dwarf Martin B line/SC 241/2/SC 241*2/4/SC 241.
local name: SV 34. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 3911C. SC 241. Released in 1974. RACE Group
1:Roxburghii. Breeding Material. Seed.
- PI 533844 donor id: IS 3955C. origin: Nepal. pedigree: SC
242/3/4-dwarf Martin B line/SC 242/2/SC 242*2/4/SC 242.
local name: EC 18103. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 3955C. SC 242. Released in 1974. RACE Group
1:Roxburghii. Breeding Material. Seed.
- PI 533845 donor id: IS 3956C. origin: Nepal. pedigree: SC
243/3/4-dwarf Martin B line/SC 243/2/SC 243*2/4/SC 243.
local name: EC 18246. remarks: Plants short-statured,
generally 4- or 3- dwarf height. Photoperiod insensitive.
IS 3956C. SC 243. Released in 1974. RACE Group
1:Roxburghii. Breeding Material. Seed.
- PI 533846 donor id: IS 4839C. origin: India. pedigree: SC
431/3/4-dwarf Martin B line/SC 431/2/SC 431*2/4/SC 431.
local name: Pop type Masma. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 4839C. SC 431. Released in
1974. RACE Group 41:Durra. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533847 **donor id:** IS 4884C. **origin:** India. **pedigree:** SC 244/3/4-dwarf Martin B line/SC 244/2/SC 244*2/4/SC 244. **local name:** Joudra Kharif Taked Budhur. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 4884C. SC 244. Released in 1974. **RACE Group 1:**Roxburghii. **Breeding Material.** Seed.
- PI 533848 **donor id:** IS 5394C. **origin:** India. **pedigree:** SC 252/3/4-dwarf Martin B line/SC 252/2/SC 252*2/4/SC 252. **local name:** Muthu Cholam. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5394C. SC 252. Released in 1974. **RACE Group 1:**Roxburghii. **Breeding Material.** Seed.
- PI 533849 **donor id:** IS 5530C. **origin:** India. **pedigree:** SC 457/3/4-dwarf Martin B line/SC 457/2/SC 457*2/4/SC 457. **local name:** Kogar Jola, Adrikatte. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5530C. SC 457. Released in 1974. **RACE Group 45:**Durra-Doch. **Breeding Material.** Seed.
- PI 533850 **donor id:** IS 5554C. **origin:** India. **pedigree:** SC 459/3/4-dwarf Martin B line/SC 459/2/SC 459*2/4/SC 459. **local name:** Kappa Malagi, Maranpur. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5554C. SC 459. Released in 1974. **RACE Group 41:**Durra. **Breeding Material.** Seed.
- PI 533851 **donor id:** IS 5747C. **origin:** India. **pedigree:** SC 315/3/4-dwarf Martin B line/SC 315/2/SC 315*2/4/SC 315. **local name:** Narkatia Shittajpur. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5747C. SC 315. Released in 1974. **RACE Group 17:**Dochna-Rox. **Breeding Material.** Seed.
- PI 533852 **donor id:** IS 5769C. **origin:** India. **pedigree:** SC 450/3/4-dwarf Martin B line/SC 450/2/SC 450*2/4/SC 450. **local name:** Cholia Talijhari. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5769C. SC 450. Released in 1974. **RACE Group 41:**Durra. **Breeding Material.** Seed.

PI 533808 to 533927-continued

- PI 533853 **donor id:** IS 5887C. **origin:** India. **pedigree:** SC 248/3/4-dwarf Martin B line/SC 248/2/SC 248*2/4/SC 248. **local name:** Jandri Jokapal. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5887C. SC 248. Released in 1974. **RACE** Group 1:Roxburghii. **Breeding Material.** Seed.
- PI 533854 **donor id:** IS 5892C. **origin:** India. **pedigree:** SC 254/3/4-dwarf Martin B line/SC 254/2/SC 254*2/4/SC 254. **local name:** Jundra Jesa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 5892C. SC 254. Released in 1974. **RACE** Group 1:Roxburghii. **Breeding Material.** Seed.
- PI 533855 **donor id:** IS 6271C. **origin:** India. **pedigree:** SC 317/3/4-dwarf Martin B line/SC 317/2/SC 317*2/4/SC 317. **local name:** Chanan Singoo. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 6271C. SC 317. Released in 1974. **RACE** Group 17:Dochna-Rox. **Breeding Material.** Seed.
- PI 533856 **donor id:** IS 6389C. **origin:** India. **pedigree:** SC 489/3/4-dwarf Martin B line/SC 489/2/SC 489*2/4/SC 489. **local name:** Jola Nandyal. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 6389C. SC 489. Released in 1974. **RACE** Group 46(1):Nandyal. **Breeding Material.** Seed.
- PI 533857 **donor id:** IS 6418C. **origin:** India. **pedigree:** SC 493/3/4-dwarf Martin B line/SC 493/2/SC 493*2/4/SC 493. **local name:** Jowar Shenoli 4-5. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 6418C. SC 493. Released in 1974. **RACE** Group 46(1):Nandyal. **Breeding Material.** Seed.
- PI 533858 **donor id:** IS 6439C. **origin:** India. **pedigree:** SC 499/3/4-dwarf Martin B line/SC 499/2/SC 499*2/4/SC 499. **local name:** Jowar Shenoli 4-2. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. Photoperiod insensitive. IS 6439C. SC 499. Released in 1974. **RACE** Group 46(1):Nandyal. **Breeding Material.** Seed.

PI 533808 to 533927-continued

- PI 533859 donor id: IS 6440C. origin: India. pedigree: SC
482/3/4-dwarf Martin B line/SC 482/2/SC 482*2/4/SC 482.
local name: Jowar Shenoli 4-2. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 6440C. SC 482. Released in
1974. RACE Group 46(1):Nandyal. Breeding Material.
Seed.
- PI 533860 donor id: IS 6456C. origin: India. pedigree: SC
501/3/4-dwarf Martin B line/SC 501/2/SC 501*2/4/SC 501.
local name: Karad Local Gati-selection. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
Photoperiod insensitive. IS 6456C. SC 501. Released in
1974. RACE Group 40:Caud-Durra. Breeding Material.
Seed.
- PI 533861 donor id: IS 6710C. origin: Senegal. pedigree: SC
417/3/4-dwarf Martin B line/SC 417/2/SC 417*2/4/SC 417.
local name: 15 S-50-16 Didangou. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 6710C. SC 417. Released in
1974. RACE Group 38:Caud-Kafir. Breeding Material.
Seed.
- PI 533862 donor id: IS 6845C. origin: Chad. pedigree: SC
285/3/4-dwarf Martin B line/SC 285/2/SC 285*2/4/SC 285.
local name: 380 Galang Oualema. other id: PI 282857
(preconverted). remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 6845C. SC 285. Released in 1974. RACE Group
3:Conspicuum. Breeding Material. Seed.
- PI 533863 donor id: IS 6882C. origin: Chad. pedigree: SC
320/3/4-dwarf Martin B line/SC 320/2/SC 320*2/4/SC 320.
local name: 740 Oua Berr. other id: PI 282835
(preconverted). remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 6882C. SC 320. Released in 1974. RACE Group
22:Caffrorum. Breeding Material. Seed.
- PI 533864 donor id: IS 6895C. origin: Sudan. pedigree: SC
504/3/4-dwarf Martin B line/SC 504/2/SC 504*2/4/SC 504.
local name: 13 Culum 2. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 6895C. SC 504. Released in 1974. RACE Group
31:Nig-Fet. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533865 donor id: IS 6906C. origin: Sudan. pedigree: SC
335/3/4-dwarf Martin B line/SC 335/2/SC 335*2/4/SC 335.
local name: 81 Makol. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 6906C. SC 335. Released in 1974. RACE Group
33:Caudatum. Breeding Material. Seed.
- PI 533866 donor id: IS 6964C. origin: Sudan. pedigree: SC
411/3/4-dwarf Martin B line/SC 411/2/SC 411*2/4/SC 411.
local name: 255 Tirter. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 6964C. SC 411. Released in 1974. RACE Group
37:Caud-Dochna. Breeding Material. Seed.
- PI 533867 donor id: IS 7044C. origin: Sudan. pedigree: SC
340/3/4-dwarf Martin B line/SC 340/2/SC 340*2/4/SC 340.
local name: 529 PB8 Feterita. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 7044C. SC 340. Released in
1974. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 533868 donor id: IS 7094C. origin: Sudan. pedigree: SC
337/3/4-dwarf Martin B line/SC 337/2/SC 337*2/4/SC 337.
local name: 187 SBI 151. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7094C. SC 337. Released in 1974. RACE Group
33:Caudatum. Breeding Material. Seed.
- PI 533869 donor id: IS 7173C. origin: Tanzania. pedigree: SC
283/3/4-dwarf Martin B line/SC 283/2/SC 283*2/4/SC 283.
local name: Msumbji SB 117. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 7173C. SC 283. Released in
1974. RACE Group 3:Conspicuum. Breeding Material.
Seed.
- PI 533870 donor id: IS 7242C. origin: Nigeria. pedigree: SC
578/3/4-dwarf Martin B line/SC 578/2/SC 578*2/4/SC 578.
local name: Masakwa Tumbuna. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 7242C. SC 578. Released in
1974. RACE Group 40:Caud-Durra. Breeding Material.
Seed.
- PI 533871 donor id: IS 7254C. origin: Nigeria. pedigree: SC
566/3/4-dwarf Martin B line/SC 566/2/SC 566*2/4/SC 566.
local name: M 1. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7254C. SC 566. Released in 1974. RACE Group
33:Caudatum. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533872 **donor id:** IS 7340C. **origin:** Nigeria. **pedigree:** SC
367/3/4-dwarf Martin B line/SC 367/2/SC 367*2/4/SC 367.
local name: BO 44 Kaura. **remarks:** Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7340C. SC 367. Released in 1974. **RACE Group**
34:Caud-Kaura. Breeding Material. Seed.
- PI 533873 **donor id:** IS 7367C. **origin:** Nigeria. **pedigree:** SC
368/3/4-dwarf Martin B line/SC 368/2/SC 368*2/4/SC 368.
local name: BA 8 Kaura. **remarks:** Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7367C. SC 368. Released in 1974. **RACE Group**
34:Caud-Kaura. Breeding Material. Seed.
- PI 533874 **donor id:** IS 7379C. **origin:** Nigeria. **pedigree:** SC
369/3/4-dwarf Martin B line/SC 369/2/SC 369*2/4/SC 369.
local name: BA 22 Dawa Kaura. **remarks:** Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 7379C. SC 369. Released in
1974. **RACE Group** 34:Caud-Kaura. Breeding Material.
Seed.
- PI 533875 **donor id:** IS 7440C. **origin:** Nigeria. **pedigree:** SC
346/3/4-dwarf Martin B line/SC 346/2/SC 346*2/4/SC 346.
local name: KA 8 Farafara Yarwuri. **remarks:** Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 7440C. SC 346. Released in
1974. **RACE Group** 33:Caudatum. Breeding Material. Seed.
- PI 533876 **donor id:** IS 7444C. **origin:** Nigeria. **pedigree:** SC
563/3/4-dwarf Martin B line/SC 563/2/SC 563*2/4/SC 563.
local name: KA 12 Janjari. **remarks:** Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 7444C. SC 563. Released in
1974. **RACE Group** 33:Caudatum. Breeding Material. Seed.
- PI 533877 **donor id:** IS 7447C. **origin:** Nigeria. **pedigree:** SC
396/3/4-dwarf Martin B line/SC 396/2/SC 396*2/4/SC 396.
local name: KA 15 Yazgar Giwa. **remarks:** Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 7447C. SC 396. Released in
1974. **RACE Group** 34:Caud-Kaura. Breeding Material.
Seed.
- PI 533878 **donor id:** IS 7452C. **origin:** Nigeria. **pedigree:** SC
372/3/4-dwarf Martin B line/SC 372/2/SC 372*2/4/SC 372.
local name: KA 21 Gajerar Kaura. **remarks:** Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 7452C. SC 372. Released in
1974. **RACE Group** 34:Caud-Kaura. Breeding Material.
Seed.

PI 533808 to 533927-continued

- PI 533879 **donor id:** IS 7518C. **origin:** Nigeria. **pedigree:** SC 358/3/4-dwarf Martin B line/SC 358/2/SC 358*2/4/SC 358. **local name:** KO 39 Zauna Inuwa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7518C. SC 358. Released in 1974. **RACE** Group 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533880 **donor id:** IS 7524C. **origin:** Nigeria. **pedigree:** SC 394/3/4-dwarf Martin B line/SC 394/2/SC 394*2/4/SC 394. **local name:** KO 45 Zauna Inuwa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7524C. SC 394. Released in 1974. **RACE** Group 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533881 **donor id:** IS 7535C. **origin:** Nigeria. **pedigree:** SC 398/3/4-dwarf Martin B line/SC 398/2/SC 398*2/4/SC 398. **local name:** KO 59 Kaura. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7535C. SC 398. Released in 1974. **RACE** Group 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533882 **donor id:** IS 7537C. **origin:** Nigeria. **pedigree:** SC 399/3/4-dwarf Martin B line/SC 399/2/SC 399*2/4/SC 399. **local name:** KO 61 Baragwan Doki. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7537C. SC 399. Released in 1974. **RACE** Group 34:Caud-Kaura. **Breeding Material.** Seed.
- PI 533883 **donor id:** IS 7541C. **origin:** Nigeria. **pedigree:** SC 290/3/4-dwarf Martin B line/SC 290/2/SC 290*2/4/SC 290. **local name:** PL 5 Mori. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7541C. SC 290. Released in 1974. **RACE** Group 3:Conspicuum. **Breeding Material.** Seed.
- PI 533884 **donor id:** IS 7542C. **origin:** Nigeria. **pedigree:** SC 408/3/4-dwarf Martin B line/SC 408/2/SC 408*2/4/SC 408. **local name:** PL 6 Mori. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7542C. SC 408. Released in 1974. **RACE** Group 35:Caud-Guin. **Breeding Material.** Seed.
- PI 533885 **donor id:** IS 7543C. **origin:** Nigeria. **pedigree:** SC 296/3/4-dwarf Martin B line/SC 296/2/SC 296*2/4/SC 296. **local name:** PL 7 Jan Dawa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7543C. SC 296. Released in 1974. **RACE** Group 3:Conspicuum. **Breeding Material.** Seed.

PI 533808 to 533927-continued

- PI 533886 donor id: IS 7596C. origin: Nigeria. pedigree: SC 534/3/4-dwarf Martin B line/SC 534/2/SC 534*2/4/SC 534. local name: NG 19 Jan Dawa. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7596C. SC 534. Released in 1974. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 533887 donor id: IS 7612C. origin: Nigeria. pedigree: SC 298/3/4-dwarf Martin B line/SC 298/2/SC 298*2/4/SC 298. local name: NG 37 Dzagidi. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7612C. SC 298. Released in 1974. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 533888 donor id: IS 7617C. origin: Nigeria. pedigree: SC 291/3/4-dwarf Martin B line/SC 291/2/SC 291*2/4/SC 291. local name: NG 43 Ekpan Dzungi. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7617C. SC 291. Released in 1974. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 533889 donor id: IS 7735C. origin: Nigeria. pedigree: SC 528/3/4-dwarf Martin B line/SC 528/2/SC 528*2/4/SC 528. local name: ZA 18 Iclon Saniya. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7735C. SC 528. Released in 1974. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 533890 donor id: IS 7738C. origin: Nigeria. pedigree: SC 354/3/4-dwarf Martin B line/SC 354/2/SC 354*2/4/SC 354. local name: ZA 22 Kasawa. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7738C. SC 354. Released in 1974. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 533891 donor id: IS 7762C. origin: Nigeria. pedigree: SC 387/3/4-dwarf Martin B line/SC 387/2/SC 387*2/4/SC 387. local name: ZA 50 Kaura Mai Bakan Zuciya. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7762C. SC 387. Released in 1974. RACE Group 34:Caud-Kaura. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533892 donor id: IS 7769C. origin: Nigeria. pedigree: SC 530/3/4-dwarf Martin B line/SC 530/2/SC 530*2/4/SC 530. local name: ZA 59 Mori. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7769C. SC 530. Released in 1974. Used for food. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 533893 donor id: IS 7776C. origin: Nigeria. pedigree: SC 388/3/4-dwarf Martin B line/SC 388/2/SC 388*2/4/SC 388. local name: ZA 67 Kaura Mai Masaba. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7776C. SC 388. Released in 1974. RACE Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 533894 donor id: IS 7778C. origin: Nigeria. pedigree: SC 389/3/4-dwarf Martin B line/SC 389/2/SC 389*2/4/SC 389. local name: ZA 69 Kaura. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7778C. SC 389. Released in 1974. RACE Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 533895 donor id: IS 7787C. origin: Nigeria. pedigree: SC 356/3/4-dwarf Martin B line/SC 356/2/SC 356*2/4/SC 356. local name: ZA 78 Sutura. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7787C. SC 356. Released in 1974. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 533896 donor id: IS 7790C. origin: Nigeria. pedigree: SC 401/3/4-dwarf Martin B line/SC 401/2/SC 401*2/4/SC 401. local name: ZA 81 Kaura Mai Faran Kona. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7790C. SC 401. Released in 1974. RACE Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 533897 donor id: IS 7809C. origin: Nigeria. pedigree: SC 402/3/4-dwarf Martin B line/SC 402/2/SC 402*2/4/SC 402. local name: ZA 100 Kaura Mai Masaba. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7809C. SC 402. Released in 1974. RACE Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 533898 donor id: IS 7864C. origin: Nigeria. pedigree: SC 403/3/4-dwarf Martin B line/SC 403/2/SC 403*2/4/SC 403. local name: IN 34 Dandura. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7864C. SC 403. Released in 1974. RACE Group 34:Caud-Kaura. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533899 **donor id:** IS 7907C. **origin:** Nigeria. **pedigree:** SC 427/3/4-dwarf Martin B line/SC 427/2/SC 427*2/4/SC 427. **local name:** SO 1 Masse de Kunya. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7907C. SC 427. Released in 1974. **RACE** Group 34:Caud-Durra. Breeding Material. Seed.
- PI 533900 **donor id:** IS 8052C. **origin:** Japan. **pedigree:** SC 426/3/4-dwarf Martin B line/SC 426/2/SC 426*2/4/SC 426. **local name:** A-54. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8052C. SC 426. Released in 1974. **RACE** Group 40:Caud-Durra. Breeding Material. Seed.
- PI 533901 **donor id:** IS 8100C. **origin:** Japan. **pedigree:** SC 424/3/4-dwarf Martin B line/SC 424/2/SC 424*2/4/SC 424. **local name:** A-96. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8100C. SC 424. Released in 1974. **RACE** Group 39:Caud-Nig. Breeding Material. Seed.
- PI 533902 **donor id:** IS 12526C. **origin:** Ethiopia. **pedigree:** SC 6/3/4-dwarf Martin B line/SC 6/2/SC 6*2/4/SC 6. **local name:** Orange No. 1, Baijo. **other id:** PI 147837 (preconverted). **other id:** MN 604 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12526C. SC 6. Released in 1974. **RACE** Group 50:Subglab. Breeding Material. Seed.
- PI 533903 **donor id:** IS 12537C. **origin:** Ethiopia. **pedigree:** SC 17/3/4-dwarf Martin B line/SC 17/2/SC 17*2/4/SC 17. **local name:** No. 35 Mab. **other id:** PI 147934 (preconverted). **other id:** MN 637 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12537C. SC 17. Released in 1974. **RACE** Group 17:Dochna. Breeding Material. Seed.
- PI 533904 **donor id:** IS 12539C. **origin:** Ethiopia. **pedigree:** SC 19/3/4-dwarf Martin B line/SC 19/2/SC 19*2/4/SC 19. **local name:** No. 33 Jinkuch. **other id:** PI 147937 (preconverted). **other id:** MN 635 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12539C. SC 19. Released in 1974. **RACE** Group 14:Doch-Amber. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533905 donor id: IS 12549C. origin: Ethiopia. pedigree: SC 29/3/4-dwarf Martin B line/SC 29/2/SC 29*2/4/SC 29. local name: No. 52 Delgom. other id: PI 148093 (preconverted). other id: MN 676 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12549C. SC 29. Released in 1974. RACE Group 41:Durra. Breeding Material. Seed.
- PI 533906 donor id: IS 12551C. origin: Ethiopia. pedigree: SC 31/3/4-dwarf Martin B line/SC 31/2/SC 31*2/4/SC 31. local name: No. 72 Gobenti Tingish. other id: PI 148098 (preconverted). other id: MN 696 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12551C. SC 31. Released in 1974. RACE Group 41:Durra. Breeding Material. Seed.
- PI 533907 donor id: IS 12556C. origin: Ethiopia. pedigree: SC 36/3/4-dwarf Martin B Line/SC 36/2/SC 36*2/4/SC 36. local name: No. 68 Megalie. other id: PI 148105 (preconverted). other id: MN 692 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12556C. SC 36. Released in 1974. RACE Group 41:Durra. Breeding Material. Seed.
- PI 533908 donor id: IS 12563C. origin: Ethiopia. pedigree: SC 44/3/4-dwarf Martin B line/SC 44/2/SC 44*2/4/SC 44. local name: (Sweet) Sorghum vulgare. other id: PI 151303 (preconverted). other id: MN 710 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12563C. SC 44. Released in 1974. RACE Group 14:Doch-Amber. Breeding Material. Seed.
- PI 533909 donor id: IS 12564C. origin: Sudan. pedigree: SC 48/3/4-dwarf Martin B line/SC 48/2/SC 48*2/4/SC 48. local name: Akur Gob. other id: PI 152591 (preconverted). other id: MN 730 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12564C. SC 48. Released in 1974. RACE Group 39(1):Zerazera. Breeding Material. Seed.
- PI 533910 donor id: IS 12568C. origin: Sudan. pedigree: SC 56/3/4-dwarf Martin B line/SC 56/2/SC 56*2/4/SC 56. local name: Klor. other id: PI 152702 (preconverted). other id: MN 830 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12568C. SC 56. Released in 1974. RACE Group 39:Caud-Nig. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533911 donor id: IS 12570C. origin: Sudan. pedigree: SC 58/3/4-dwarf Martin B line/SC 58/2/SC 58*2/4/SC 58. local name: Kokla. other id: PI 152705 (preconverted). other id: MN 833 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12570C. SC 58. Released in 1974. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 533912 donor id: IS 12573C. origin: Sudan. pedigree: SC 63/3/4-dwarf Martin B line/SC 63/2/SC 63*2/4/SC 63. local name: Mendo. other id: PI 152731 (preconverted). other id: MN 859 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12573C. SC 63. Released in 1974. RACE Group 39:Caud-Nig. Breeding Material. Seed.
- PI 533913 donor id: IS 12575C. origin: Sudan. pedigree: SC 66/3/4-dwarf Martin B line/SC 66/2/SC 66*2/4/SC 66. local name: Nyan Dok. other id: PI 152748 (preconverted). other id: MN 877 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12575C. SC 66. Released in 1974. RACE Group 30(2):Nig Guin. Breeding Material. Seed.
- PI 533914 donor id: IS 12587C. origin: Kenya. pedigree: SC 78/3/4-dwarf Martin B line/SC 78/2/SC 78*2/4/SC 78. local name: No. 753 Muemba. other id: PI 153857 (preconverted). other id: MN 1263 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12587C. SC 78. Released in 1974. RACE Group 38:Caud-Caffr. Breeding Material. Seed.
- PI 533915 donor id: IS 12588C. origin: Kenya. pedigree: SC 79/3/R TX 412 (or SA 3105))/SC 79/2/SC 79*2/4/SC 79. local name: No. 755 Muzeba. other id: PI 153859 (preconverted). other id: MN 1265 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12588C. SC 79. Released in 1974. RACE Group 38:Caud-Caffr. Breeding Material. Seed.
- PI 533916 donor id: IS 12599C. origin: Zaire. pedigree: SC 90/3/4-dwarf Martin B line/SC 90/2/SC 90*2/4/SC 90. local name: E-38 Zori (Kukura). other id: PI 156034 (preconverted). other id: MN 1631 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12599C. SC 90. Released in 1974. RACE Group 3:Conspicuum. Breeding Material. Seed.

PI 533808 to 533927-continued

- PI 533917 **donor id:** IS 12602C. **origin:** Nigeria. **pedigree:** SC 97/3/4-dwarf Martin B line/SC 97/2/SC 97*2/4/SC 97. **local name:** Mori White Glume. **other id:** PI 221624 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12602C. SC 97. Released in 1974. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533918 **donor id:** IS 12612C. **origin:** Ethiopia. **pedigree:** SC 112/3/4-dwarf Martin B line/SC 112/2/SC 112*2/4/SC 112. **local name:** No. 9 Gambela. **other id:** PI 257603 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12612C. SC 112. Released in 1974. **RACE Group** 39(1):Zerazera. **Breeding Material.** Seed.
- PI 533919 **donor id:** IS 12615C. **origin:** Ethiopia. **pedigree:** SC 124/3/4-dwarf Martin B line/SC 124/2/SC 124*2/4/SC 124. **local name:** R1,4. **other id:** PI 276770 (preconverted). **other id:** SA 2288 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12615C. SC 124. Released in 1974. **RACE Group** 45:Durra-Doch. **Breeding Material.** Seed.
- PI 533920 **donor id:** IS 12618C. **origin:** Ethiopia. **pedigree:** SC 127/3/4-dwarf Martin B line/SC 127/2/SC 127*2/4/SC 127. **local name:** R1,7. **other id:** PI 276773 (preconverted). **other id:** SA 2291 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12618C. SC 127. Released in 1974. **RACE Group** 45:Durra-Doch. **Breeding Material.** Seed.
- PI 533921 **donor id:** IS 12635C. **origin:** Ethiopia. **pedigree:** SC 144/3/4-dwarf Martin B line/SC 144/2/SC 144*2/4/SC 144. **local name:** R1,38. **other id:** PI 276799 (preconverted). **other id:** SA 2317 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12635C. SC 144. Released in 1974. **RACE Group** 48(2):Durra-Caud. **Breeding Material.** Seed.
- PI 533922 **donor id:** IS 12638C. **origin:** Ethiopia. **pedigree:** SC 147/3/4-dwarf Martin B line/SC 147/2/SC 147*2/4/SC 147. **local name:** R2,40. **other id:** PI 276803 (preconverted). **other id:** SA 2321 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12638C. SC 147. Released in 1974. **RACE Group** 12:Dochna. **Breeding Material.** Seed.

PI 533808 to 533927-continued

- PI 533923 donor id: IS 12656C. origin: Ethiopia. pedigree: SC 165/3/4-dwarf Martin B line/SC 165/2/SC 165*2/4/SC 165. local name: R3,117. other id: PI 276828 (preconverted). other id: SA 2346 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12656C. SC 165. Released in 1974. RACE Group 39:Caud-Nig. Breeding Material. Seed.
- PI 533924 donor id: IS 12657C. origin: Ethiopia. pedigree: SC 166/3/R TX 412 (or SA 3105)/SC 166/2/SC 166*2/4/SC 166. local name: R3,121. other id: PI 276829 (preconverted). other id: SA 2347 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12657C. SC 166. Released in 1974. RACE Group 44:Durra Bic. Breeding Material. Seed.
- PI 533925 donor id: IS 12658C. origin: Ethiopia. pedigree: SC 167/3/4-dwarf Martin B line/SC 167/2/SC 167*2/4/SC 167. local name: R3,122. other id: PI 276830 (preconverted). other id: SA 2348 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12658C. SC 167. Released in 1974. RACE Group 44:Durra-Bic. Breeding Material. Seed.
- PI 533926 donor id: IS 12680C. origin: India. pedigree: SC 217/3/4-dwarf Martin B line/SC 217/2/SC 217*2/4/SC 217. local name: GJ 869. other id: CI 1197. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12680C. SC 217. Released in 1974. RACE Group 13:Doch-Leoti. Breeding Material. Seed.
- PI 533927 donor id: IS 12685C. origin: Ethiopia. pedigree: SC 224/3/4-dwarf Martin B line/SC 224/2/SC 224*2/4/SC 224. local name: J.A.T.S. #67. other id: SA 2386. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12685C. SC 224. Released in 1974. RACE Group 13:Doch-Leoti. Breeding Material. Seed.

PI 533928 to 534167. Sorghum bicolor (L.) Moench POACEAE Sorghum

Donated by: Rosenow, D.T., Agriculture Research & Extension Center, Texas A&M University, Route 3, Box 219, Lubbock, Texas, United States. **remarks:** Cooperative Sorghum Conversion Program conducted by the Texas Agric. Exp. Station and the Mayaguez Tropical Agric. Res. Station, USDA-ARS. Designations include IS (World Collection No.), C (converted) and preconversion accession no. (SC), origin, other identifiers, local names or number. Received December 16, 1987.

PI 533928 **donor id:** IS 535C. **origin:** UNKNOWN. **pedigree:** SC 761/3/4-dwarf Martin B line/SC 761/2/SC 761*2/4/SC 761. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 535C. SC 761. Fertility reaction Restorer. Received through Mexico. Released in 1986. **RACE** Group 38:Caud-Kaf. Breeding Material. Seed.

PI 533929 **donor id:** IS 628C. **origin:** Peru. **pedigree:** SC 634/3/4-dwarf Martin B line/SC 634/2/SC 634*2/4/SC 634. **local name:** Peru 2. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 628C. SC 634. Fertility reaction maintainer. Released in 1986. **RACE** Group 22:Caffrorum. Breeding Material. Seed.

PI 533930 **donor id:** IS 957C. **origin:** Sudan. **pedigree:** SC 810/3/4-dwarf Martin B line/SC 810/2/SC 810*2/4/SC 810. **local name:** FC 4546 Maga Abiad (Sudano). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 957C. C 810. Fertility reaction Restorer. Released in 1986. **RACE** Group 40:Caud-Durra. Breeding Material. Seed.

PI 533931 **donor id:** IS 1098C. **origin:** India. **pedigree:** SC 222/3/4-dwarf Martin B line/SC 222/2/SC 222*2/4/SC 222. **local name:** Malvan. **other id:** SA 1761. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1098C. SC 222. Fertility reaction partial restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.

PI 533932 **donor id:** IS 1122(A)C. **origin:** India. **pedigree:** SC 200/3/4-dwarf Martin B line/SC 200/2/SC 200*2/4/SC 200. **local name:** Karad Local. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1122(A)C. SC 200. Fertility reaction partial restorer. Released in 1986. **RACE** Group 46(1):Nandyal. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533933 **donor id:** IS 1122(B)C. **origin:** India. **pedigree:** SC 469/3/4-dwarf Martin B line/SC 469/2/SC 469*2/4/SC 469. **local name:** Karad Local (Kharif). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1122(B)C. SC 469. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1): Nandyal. **Breeding Material.** Seed.
- PI 533934 **donor id:** IS 1144C. **origin:** India. **pedigree:** SC 451/3/4-dwarf Martin B line/SC 451/2/SC 451*2/4/SC 451. **local name:** Jonna Akp 1. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1144C. SC 451. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 533935 **donor id:** IS 1151C. **origin:** India. **pedigree:** SC 231/3/4 dwarf Martin B line/SC 231/2/SC 231*2/4/SC 231. **local name:** Aispuri. **other id:** PI 291232 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 1151C. SC 231. Fertility reaction Restorer. Released in 1986. **RACE Group** 49:Cernuum. **Breeding Material.** Seed.
- PI 533936 **donor id:** IS 1168C. **origin:** Tanzania. **pedigree:** SC 603/3/4-dwarf Martin B line/SC 603/2/SC 603*2/4/SC 603. **local name:** 1903 AS 4633. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1168C. SC 603. Fertility reaction maintainer. Released in 1986. **RACE Group** 3:Conspicuum. **Breeding Material.** Seed.
- PI 533937 **donor id:** IS 1269C. **origin:** Rhodesia. **pedigree:** SC 630/3/4-dwarf Martin B line/SC 630/2/SC 630*2/4/SC 630. **local name:** AS 4136 Masaka Luwemba. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1269C. SC 630. Fertility reaction maintainer. Released in 1986. **RACE Group** 22:Caffrorum. **Breeding Material.** Seed.
- PI 533938 **donor id:** IS 1311C. **origin:** Zaire. **pedigree:** SC 558/3/4-dwarf Martin B line/SC 558/2/SC 558*2/4/SC 558. **local name:** AS 5826 Holcus. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1311C. SC 558. Fertility reaction maintainer. Released in 1986. **RACE Group** 29:Nigricans. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 533939 **donor id:** IS 1318C. **origin:** Ethiopia. **pedigree:** SC 557/3/4-dwarf Martin B line/SC 557/2/SC 557*2/4/SC 557. **local name:** AS 4055 N Kambwa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1318C. SC 557. Fertility reaction partial restorer. Released in 1986. **RACE** Group 29:Nigricans. Breeding Material. Seed.
- PI 533940 **donor id:** IS 1333C. **origin:** Tanzania. **pedigree:** SC 614/3/4-dwarf Martin B line/SC 614/2/SC 614*2/4/SC 614. **local name:** AS 4601 Pawaga. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1333C. SC 614. Fertility reaction maintainer restorer. Released in 1986. **RACE** Group 10:Bicolor. Breeding Material. Seed.
- PI 533941 **donor id:** IS 1340C. **origin:** Tanzania. **pedigree:** SC 432/3/4-dwarf Martin B line/SC 432/2/SC 432*2/4/SC 432. **local name:** AS 4632 Mwanamkuimea. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1340C. SC 432. Fertility reaction maintainer restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 533942 **donor id:** IS 1366C. **origin:** India. **pedigree:** SC 210/3/4-dwarf Martin B line/SC 210/2/SC 210*2/4/SC 210. **local name:** AS 349 Budda Joma. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1366C. SC 210. Fertility reaction Restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 533943 **donor id:** IS 1387C. **origin:** India. **pedigree:** SC 467/3/4-dwarf Martin B line/SC 467/2/SC 467*2/4/SC 467. **local name:** AS 2613 NT. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1387C. SC 467. Fertility reaction Restorer. Released in 1986. **RACE** Group 45:Durra-Doch. Breeding Material. Seed.
- PI 533944 **donor id:** IS 1456C. **origin:** India. **pedigree:** SC 452/3/4-dwarf Martin B line/SC 452/2/SC 452*2/4/SC 452. **local name:** AS 9391 Sundhia Jowar. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1456C. SC 452. Fertility reaction Restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533945 **donor id:** IS 1477C. **origin:** India. **pedigree:** SC 211/3/4-dwarf Martin B line/SC 211/2/SC 211*2/4/SC 211. **local name:** AS 1019 Ennai Cholam. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 1477C. SC 211. Fertility reaction Restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 533946 **donor id:** IS 2074C. **origin:** India. **pedigree:** SC 468/3/4-dwarf Martin B line/SC 468/2/SC 468*2/4/SC 468. **local name:** IS 1601, MS385AXIS1008SA6473PB3R. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2074C. SC 468. Fertility reaction partial restorer. Released in 1986. **RACE** Group 45:Durra-Doch. Breeding Material. Seed.
- PI 533947 **donor id:** IS 2206C. **origin:** India. **pedigree:** SC 437/3/4-dwarf Martin B line/SC 437/2/SC 437*2/4/SC 437. **local name:** Chawri Jowar. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2206C. SC 437. Fertility reaction Restorer. Released in 1986. Cooking type. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 533948 **donor id:** IS 2232C. **origin:** United States. **pedigree:** SC 663/3/4-dwarf Martin B line/SC 663/2/SC 663*2/4/SC 663. **local name:** Nebraska 6350. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2232C. SC 663. Fertility reaction maintainer. Released in 1986. **RACE** Group 25:Caffr-Rox. Breeding Material. Seed.
- PI 533949 **donor id:** IS 2288C. **origin:** Sudan. **pedigree:** SC 760/3/4-dwarf Martin B line/SC 760/2/SC 760*2/4/SC 760. **local name:** Maja Abiad Q2/2/68. **other id:** PI 217694 (preconverted). **other id:** No. 46. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2288C. SC 760. Fertility reaction Restorer. Released in 1986. **RACE** Group 38:Caud-Kaf. Breeding Material. Seed.
- PI 533950 **donor id:** IS 2328C. **origin:** Sudan. **pedigree:** SC 94/3/4-dwarf Martin B line/SC 94/2/SC 94*2/4/SC 94. **local name:** Malwal. **other id:** PI 217881 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2328C. SC 94. Fertility reaction Restorer. Released in 1986. **RACE** Group 3:Conspicuum. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533951 **donor id:** IS 2362C. **origin:** Nigeria. **pedigree:** SC 96/3/4-dwarf Martin B line/SC 96/2/SC 96*2/4/SC 96. **local name:** 9E. **other id:** PI 221608 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 2362C. SC 96. Fertility reaction Restorer. Released in 1986. **RACE** Group 39:Caud-Nig. **Breeding Material.** Seed.
- PI 533952 **donor id:** IS 2395C. **origin:** South Africa. **pedigree:** SC 647/3/4-dwarf Martin B line/SC 647/2/SC 647*2/4/SC 647. **local name:** Redoxma Feking Q2/5/79. **other id:** PI 229872 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2395C. SC 647. Fertility reaction maintainer. Released in 1986. **RACE** Group 24:Cafforum-Bridproff. **Breeding Material.** Seed.
- PI 533953 **donor id:** IS 2401C. **origin:** South Africa. **pedigree:** SC 653/3/4-dwarf Martin B line/SC 653/2/SC 653*2/4/SC 653. **other id:** PI 239439 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2401C. SC 653. Fertility reaction maintainer. Released in 1986. Witchweed resistant. Bromis (birdproof). **RACE** Group 24:Cafforum-Bridproff. **Breeding Material.** Seed.
- PI 533954 **donor id:** IS 2416C. **origin:** South Africa. **pedigree:** SC 101/3/4-dwarf Martin B line/SC 101/2/SC 101*2/4/SC 101. **local name:** P 3742. **other id:** PI 229847 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2416C. SC 101. Fertility reaction maintainer. Released in 1986. **RACE** Group 30(1): Sumac. **Breeding Material.** Seed.
- PI 533955 **donor id:** IS 2419C. **origin:** South Africa. **pedigree:** SC 648/3/4-dwarf Martin B line/SC 648/2/SC 648*2/4/SC 648. **local name:** P 3749 Q2/5/62. **other id:** PI 229854 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2419C. SC 648. Fertility reaction maintainer. Released in 1986. **RACE** Group 24:Cafforum-Bridproff. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 533956 **donor id:** IS 2456C. **origin:** UNKNOWN. **pedigree:** SC 623/3/4-dwarf Martin B line/SC 623/2/SC 623*2/4/SC 623. **local name:** Sweet S. Jones. **other id:** PI 146885 (preconverted). **other id:** MN 586 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2456C. SC 623. Fertility reaction partial restorer. Released 1986. Received through the United States. **RACE** Group 20:Doch-Durra. Breeding Material. Seed.
- PI 533957 **donor id:** IS 2462C. **origin:** UNKNOWN. **pedigree:** SC 325/3/4-dwarf Martin B line/SC 325/2/SC 325*2/4/SC 325. **local name:** Sorghum vulgare. **other id:** MN 707 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2462C. SC 325. Fertility reaction progeny segregate. Released in 1986. Received through the United States. **RACE** Group 29:Nigricans. Breeding Material. Seed.
- PI 533958 **donor id:** IS 2465C. **origin:** UNKNOWN. **pedigree:** SC 306/3/4-dwarf Martin B line/SC 306/2/SC 306*2/4/SC 306. **local name:** Sweet Sorghum vulgare. **other id:** MN 710 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2465C. SC 306. Fertility reaction maintainer. Released in 1986. Received through the United States. **RACE** Group 12:Dochna. Breeding Material. Seed.
- PI 533959 **donor id:** IS 2496C. **origin:** UNKNOWN. **pedigree:** SC 707/3/4-dwarf Martin B line/SC 707/2/SC 707*2/4/SC 707. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2496C. SC 707. Fertility reaction Restorer. Released in 1986. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533960 **donor id:** IS 2535C. **origin:** Sudan. **pedigree:** SC 54/3/4-dwarf Martin B line/SC-54/2/SC 54*2/4/SC 54. **local name:** Feterita Harig 2. **other id:** PI 152654 (preconverted). **other id:** MN 788 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 2535C. SC 54. Fertility reaction Restorer. Released in 1986. **RACE** Group 33:Caudatum. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533961 donor id: IS 2553C. origin: South Africa. pedigree: SC 121/3/4-dwarf Martin B line/SC 121/2/SC 121*2/4/SC 121. local name: Wit Luhtenbarg D4554. other id: PI 267510 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 2553C. SC 121. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 533962 donor id: IS 2569C. origin: Sudan. pedigree: SC 60/3/4-dwarf Martin B line/SC 60/2/SC 60*2/4/SC 60. local name: Malwal Awail. other id: PI 152725 (preconverted). other id: MN 853 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 2569C. SC 60. Fertility reaction Restorer. Released in 1986. RACE Group 39:Caud-Nig. Breeding Material. Seed.
- PI 533963 donor id: IS 2573C. origin: Sudan. pedigree: SC 683/3/4-dwarf Martin B line/SC 683/2/SC 683*2/4/SC 683. local name: Monshal Equitoria. other id: PI 152736 (preconverted). other id: MN 864 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2573C. SC 683. Fertility reaction Restorer. Released in 1986. RACE Group 31:Nigr-Fet. Breeding Material. Seed.
- PI 533964 donor id: IS 2586C. origin: Sudan. pedigree: SC 803/3/4-dwarf Martin B line/SC 803/2/SC 803*2/4/SC 803. local name: Safara, Kordafan. other id: PI 152781 (preconverted). other id: MU 899. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2586C. SC 803. Fertility reaction Restorer. Released in 1986. RACE Group 39(1):Zerazera. Breeding Material. Seed.
- PI 533965 donor id: IS 2683C. origin: Uganda. pedigree: SC 115/3/4-dwarf Martin B line/SC 115/2/SC 115*2/4/SC 115. local name: J-73. other id: PI 267369. other id: J-73. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. Fertility reaction partial restorer. Release in 1986. RACE Group 39:Caud-Nig. Breeding Material. Seed.
- PI 533966 donor id: IS 2685C. origin: Uganda. pedigree: SC 692/3/4-dwarf Martin B line/SC 692/2/SC 692*2/4/SC 692. local name: L-20. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2685C. SC 692. Fertility reaction Restorer. Released in 1986. RACE Group 31(1):Dobbs. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533967 **donor id:** IS 2723C. **origin:** Uganda. **pedigree:** SC 805/3/4-dwarf Martin B line/SC 805/2/SC 805*2/4/SC 805. **local name:** SB-283. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2732C. SC 805. Fertility reaction Restorer. Released in 1986. **RACE** Group 39(1):Zerazera. Breeding Material. Seed.
- PI 533968 **donor id:** IS 2727C. **origin:** Uganda. **pedigree:** SC 728/3/4-dwarf Martin B line/SC 728/2/SC 728*2/4/SC 728. **local name:** BC 2 Belko (S76). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2727C. SC 728. Fertility reaction Restorer. Released in 1986. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533969 **donor id:** IS 2729C. **origin:** Uganda. **pedigree:** SC 689/3/4-dwarf Martin B line/SC 689/2/SC 689*2/4/SC 689. **local name:** 2031 T 11. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2729C. SC 689. Fertility reaction Restorer. Released in 1986. **RACE** Group 31:Nigr-Fet. Breeding Material. Seed.
- PI 533970 **donor id:** IS 2740C. **origin:** Uganda. **pedigree:** SC 708/3/4-dwarf Martin B line/SC 708/2/SC 708*2/4/SC 708. **local name:** 2033Z-3. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2740C. SC 708. Fertility reaction Restorer. Released in 1986. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533971 **donor id:** IS 2758C. **origin:** Uganda. **pedigree:** SC 690/3/4-dwarf Martin B line/SC 690/2/SC 690*2/4/SC 690. **local name:** Sorghum soroti. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2758C. SC 690. Fertility reaction Restorer. Released in 1986. **RACE** Group 31(1):Dobbs. Breeding Material. Seed.
- PI 533972 **donor id:** IS 2765C. **origin:** Uganda. **pedigree:** SC 964/3/4-dwarf Martin B line/SC 964/2/SC 964*2/4/SC 964. **local name:** Dobbs. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2765C. SC 964. Fertility reaction Restorer. Released in 1986. **RACE** Group 31(1):Dobbs. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533973 **donor id:** IS 2809C. **origin:** Rhodesia. **pedigree:** SC 119/3/4-dwarf Martin B line/SC 119/2/SC 119*2/4/SC 119. **local name:** Feterita Wadumm Benes. **other id:** PI 267467 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2809C. SC 119. Fertility reaction Restorer. Released in 1986. **RACE** Group 39:Caud-Nig. Breeding Material. Seed.
- PI 533974 **donor id:** IS 2822C. **origin:** Rhodesia. **pedigree:** SC 764/3/4-dwarf Martin B line/SC 764/2/SC 764*2/4/SC 764. **local name:** Red Swazi Local 241/56. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2822C. SC 764. Fertility reaction Restorer. Released in 1986. **RACE** Group 39:Caud-Kaf. Breeding Material. Seed.
- PI 533975 **donor id:** IS 2825C. **origin:** Rhodesia. **pedigree:** SC 654/3/4-dwarf Martin B line/SC 654/2/SC 654*2/4/SC 654. **local name:** Tall Birdproof 68/56. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2825C. SC 654. Fertility reaction maintainer. Released in 1986. **RACE** Group 24:Cafforum-Bridproff. Breeding Material. Seed.
- PI 533976 **donor id:** IS 2862C. **origin:** South Africa. **pedigree:** SC 655/3/4-dwarf Martin B line/SC 655/2/SC 655*2/4/SC 655. **local name:** Framida DL/59/1534. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2862C. SC 655. Fertility reaction Restorer. Released in 1986. **RACE** Group 24:Cafforum-Bridproff. Breeding Material. Seed.
- PI 533977 **donor id:** IS 2864C. **origin:** South Africa. **pedigree:** SC 963/3/4-dwarf Martin B line/SC 963/2/SC 963*2/4/SC 963. **local name:** Framida DL/59/1539. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 2864C. SC 963. Fertility reaction Restorer. Released in 1986. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533978 **donor id:** IS 3072C. **origin:** Sudan. **pedigree:** SC 577/3/4-dwarf Martin B line/SC 577/2/SC 577*2/4/SC 577. **local name:** (1440) Debekri. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3072C. SC 577. Fertility reaction Restorer. Released in 1986. **RACE** Group 40:Caud-Durra. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533979 **donor id:** IS 3169C. **origin:** South Africa. **pedigree:** SC 628/3/4-dwarf Martin B line/SC 628/2/SC 628*2/4/SC 628. **local name:** Bulfontein White Kafir Corn DL/60/133. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3169C. SC 628. Fertility reaction maintainer. Released in 1986. **RACE** Group 22:Caffrorum. Breeding Material. Seed.
- PI 533980 **donor id:** IS 3390C. **origin:** China. **pedigree:** SC 572/3/4-dwarf Martin B line/SC 572/2/SC 572*2/4/SC 572. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3390C. SC 572. Fertility reaction Restorer. Released in 1986. **RACE** Group 39:Caud-Kafir. Breeding Material. Seed.
- PI 533981 **donor id:** IS 3435C. **origin:** India. **pedigree:** SC 466/3/4-dwarf Martin B line/SC 466/2/SC 466*2/4/SC 466. **local name:** G.M. 2-3-1. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3435C. SC 466. Fertility reaction Restorer. Released in 1986. **RACE** Group 44:Durra-Bicolor. Breeding Material. Seed.
- PI 533982 **donor id:** IS 3436C. **origin:** South Africa. **pedigree:** SC 657/3/4-dwarf Martin B line/SC 657/2/SC 657*2/4/SC 657. **local name:** Wain DL/60/760. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3436C. SC 657. Fertility reaction maintainer. Released in 1986. **RACE** Group 24:Cafforum-Bridproff. Breeding Material. Seed.
- PI 533983 **donor id:** IS 3441C. **origin:** Sudan. **pedigree:** SC 737/3/4-dwarf Martin B line/SC 737/2/SC 737*2/4/SC 737. **local name:** Abu Kudur 358. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3441C. SC 737. Fertility reaction maintainer. Released in 1986. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533984 **donor id:** IS 3452C. **origin:** Sudan. **pedigree:** SC 780/3/4-dwarf Martin B line/SC 780/2/SC 780*2/4/SC 780. **local name:** Axhil 517. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3452C. SC 780. Fertility reaction Restorer. Released in 1986. **RACE** Group 38:Caud-Kaf. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533985 **donor id:** IS 3462C. **origin:** Sudan. **pedigree:** SC
701/3/4-dwarf Martin B line/SC 701/2/SC 701*2/4/SC 701.
local name: Barking 119. **remarks:** Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 3462C. SC 701. Fertility reaction partial restorer.
Released in 1986. **RACE** Group 33:Caudatum. Breeding
Material. Seed.
- PI 533986 **donor id:** IS 3499C. **origin:** Sudan. **pedigree:** SC
334/3/4-dwarf Martin B line/SC 334/2/SC 334*2/4/SC 334.
local name: Huria White 621. **remarks:** Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 3499C. SC 334. Fertility
reaction Restorer. Released in 1986. **RACE** Group
33:Caudatum. Breeding Material. Seed.
- PI 533987 **donor id:** IS 3509C. **origin:** Sudan. **pedigree:** SC
562/3/4-dwarf Martin B line/SC 562/2/SC 562*2/4/SC 562.
local name: Kireniga 317. **remarks:** Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 3509C. SC 562. Fertility
reaction Restorer. Released in 1986. **RACE** Group
33:Caudatum. Breeding Material. Seed.
- PI 533988 **donor id:** IS 3538C. **origin:** Sudan. **pedigree:** SC
723/3/4-dwarf Martin B line/SC 723/2/SC 723*2/4/SC 723.
local name: Nyan Bau. **remarks:** Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 3538C. SC 723. Fertility reaction Restorer. Released
in 1986. **RACE** Group 33:Caudatum. Breeding Material.
Seed.
- PI 533989 **donor id:** IS 3541C. **origin:** Sudan. **pedigree:** SC
798/3/4-dwarf Martin B line/SC 798/2/SC 798*2/4/SC 798.
local name: Nyithin. **remarks:** Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 3541C. SC 798. Fertility reaction Restorer. Released
in 1986. **RACE** Group 39(1):Zerazera. Breeding Material.
Seed.
- PI 533990 **donor id:** IS 3547C. **origin:** Sudan. **pedigree:** SC
709/3/4-dwarf Martin B line/SC 709/2/SC 709*2/4/SC 709.
local name: Rapbol 570. **remarks:** Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 3547C. SC 709. Fertility reaction Restorer. Released
in 1986. **RACE** Group 33:Caudatum. Breeding Material.
Seed.

PI 533928 to 534167-continued

- PI 533991 **donor id:** IS 3552C. **origin:** Sudan. **pedigree:** SC 748/3/4-dwarf Martin B line/SC 748/2/SC 748*2/4/SC 748. **local name:** Inidyil. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3552C. SC 748. Fertility reaction Restorer. Released in 1986. **RACE** Group 35:Caud-Guin. Breeding Material. Seed.
- PI 533992 **donor id:** IS 3553C. **origin:** Sudan. **pedigree:** SC 575/3/4-dwarf Martin B line/SC 575/2/SC 575*2/4/SC 575. **local name:** (1440) Tambroro White 481. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3553C. SC 575. Fertility reaction Restorer. Released in 1986. **RACE** Group 40:Caud-Durra. Breeding Material. Seed.
- PI 533993 **donor id:** IS 3555C. **origin:** Sudan. **pedigree:** SC 724/3/4-dwarf Martin B line/SC 724/2/SC 724*2/4/SC 724. **local name:** Tarano. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3555C. SC 724. Fertility reaction Restorer. Released in 1986. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533994 **donor id:** IS 3569C. **origin:** Sudan. **pedigree:** SC 681/3/4-dwarf Martin B line/SC 681/2/SC 681*2/4/SC 681. **local name:** Waramara. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3569C. SC 681. Fertility reaction Restorer. Released in 1986. **RACE** Group 47:Durra-Nig. Breeding Material. Seed.
- PI 533995 **donor id:** IS 3589C. **origin:** Sudan. **pedigree:** SC 336/3/4-dwarf Martin B line/SC 336/2/SC 336*2/4/SC 336. **local name:** Culum Agbash. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3589C. SC 336. Fertility reaction Restorer. Released in 1986. **RACE** Group 33:Caudatum. Breeding Material. Seed.
- PI 533996 **donor id:** IS 3598C. **origin:** Sudan. **pedigree:** SC 502/3/4-dwarf Martin B line/SC 502/2/SC 502*2/4/SC 502. **local name:** Hamaisi 38. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3598C. SC 502. Fertility reaction Restorer. Released in 1986. **RACE** Group 47:Durra-Nig. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 533997 **donor id:** IS 3646C. **origin:** India. **pedigree:** SC 465/3/4-dwarf Martin B line/SC 465/2/SC 465*2/4/SC 465. **local name:** Subglabrescens 1592 155143, Somi, No. 6. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3646C. SC 465. Fertility reaction Restorer. Released in 1986. **RACE** Group 42:Durra-Rox. Breeding Material. Seed.
- PI 533998 **donor id:** IS 3648C. **origin:** United States. **pedigree:** SC 949/3/4-dwarf Martin B line/SC 949/2/SC 949*2/4/SC 949. **local name:** Brawley. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3648C. SC 949. Fertility reaction maintainer. Released in 1986. **RACE** Group 30:Nigr-Bicolor. Breeding Material. Seed.
- PI 533999 **donor id:** IS 3723C. **origin:** Ethiopia. **pedigree:** SC 508/3/4-dwarf Martin B line/SC 508/2/SC 508*2/4/SC 508. **local name:** No. 115 Aba Yase. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3723C. SC 508. Fertility reaction partial restorer. Released in 1986. **RACE** Group 50:Subglabrescens. Breeding Material. Seed.
- PI 534000 **donor id:** IS 3737C. **origin:** Ethiopia. **pedigree:** SC 852/3/4-dwarf Martin B line/SC 852/2/SC 852*2/4/SC 852. **local name:** No. 149 Acklemon. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3737C. SC 852. Fertility reaction Restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 534001 **donor id:** IS 3759C. **origin:** Ethiopia. **pedigree:** SC 559/3/4-dwarf Martin B line/SC 559/2/SC 559*2/4/SC 559. **local name:** No. 189 Keye Shurre. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3759C. SC 559. Fertility reaction Restorer. Released in 1986. **RACE** Group 29:Nigricans. Breeding Material. Seed.
- PI 534002 **donor id:** IS 3829C. **origin:** Mali. **pedigree:** SC 262/3/4-dwarf Martin B line/SC 262/2/SC 262*2/4/SC 262. **local name:** Gountina Didgon Konigne. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 3829C. SC 262. Fertility reaction partial restorer. Released in 1986. **RACE** Group 3:Conspicuum. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534003 **donor id:** IS 4023C. **origin:** India. **pedigree:** SC 859/3/4-dwarf Martin B line/SC 859/2/SC 859*2/4/SC 859. **local name:** Red Chaondera. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 4023C. SC 859. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 534004 **donor id:** IS 4447C. **origin:** India. **pedigree:** SC 865/3/4-dwarf Martin B line/SC 865/2/SC 865*2/4/SC 865. **local name:** Alma Leelwa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 4447C. SC 865. Fertility reaction partial restorer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 534005 **donor id:** IS 4585C. **origin:** India. **pedigree:** SC 832/3/4-dwarf Martin B line/SC 832/2/SC 832*2/4/SC 832. **local name:** Jhingri Kolumbi. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 4585C. SC 832. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 534006 **donor id:** IS 4946C. **origin:** India. **pedigree:** SC 580/3/4-dwarf Martin B line/SC 580/2/SC 580*2/4/SC 580. **local name:** Karnatok Gidgap Mandrakoli. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 4946C. SC 580. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 534007 **donor id:** IS 4988C. **origin:** India. **pedigree:** SC 835/3/4-dwarf Martin B line/SC 835/2/SC 835*2/4/SC 835. **local name:** Vani Karatwadi. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 4988C. SC 835. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 534008 **donor id:** IS 5114C. **origin:** India. **pedigree:** SC 512/3/4-dwarf Martin B line/SC 512/2/SC 512*2/4/SC 512. **local name:** Yerra Jonna Kalupalli. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5114C. SC 512. Fertility reaction Restorer. Released in 1986. **RACE Group** 1:Roxburghii. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 534009 **donor id:** IS 5142C. **origin:** India. **pedigree:** SC 441/3/4-dwarf Martin B line/SC 441/2/SC 441*2/4/SC 441. **local name:** Yerra Jonna Goda. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5142C. SC 441. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. Breeding Material. Seed.
- PI 534010 **donor id:** IS 5145C. **origin:** India. **pedigree:** SC 442/3/4-dwarf Martin B line/SC 442/2/SC 442*2/4/SC 442. **local name:** Pyru Pachcha Jonna Kovvor. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5145C. SC 442. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. Breeding Material. Seed.
- PI 534011 **donor id:** IS 5188C. **origin:** India. **pedigree:** SC 245/3/4-dwarf Martin B line/SC 245/2/SC 245*2/4/SC 245. **local name:** Patcha Jonna Madira. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5188C. SC 245. Fertility reaction partial restorer. Released in 1986. **RACE Group** 1:Roxburghii. Breeding Material. Seed.
- PI 534012 **donor id:** IS 5337C. **origin:** India. **pedigree:** SC 515/3/4-dwarf Martin B line/SC 515/2/SC 515*2/4/SC 515. **local name:** Kasa Gangai. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5337C. SC 515. Fertility reaction Restorer. Released in 1986. **RACE Group** 1:Roxburghii. Breeding Material. Seed.
- PI 534013 **donor id:** IS 5479C. **origin:** India. **pedigree:** SC 455/3/4-dwarf Martin B line/SC 455/2/SC 455*2/4/SC 455. **local name:** Dodda Jola Maralabally. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5479C. SC 455. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. Breeding Material. Seed.
- PI 534014 **donor id:** IS 5670C. **origin:** India. **pedigree:** SC 471/3/4-dwarf Martin B line/SC 471/2/SC 471*2/4/SC 471. **local name:** Udda Maldandi Aktingeral. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5670C. SC 471. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1)Nandyal. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534015 **donor id:** IS 5674C. **origin:** India. **pedigree:** SC 584/3/4-dwarf Martin B line/SC 584/2/SC 584*2/4/SC 584. **local name:** Nipani Jola Nelri. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5674C. SC 584. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. **Breeding Material.** Seed.
- PI 534016 **donor id:** IS 5681C. **origin:** India. **pedigree:** SC 472/3/4-dwarf Martin B line/SC 472/2/SC 472*2/4/SC 472. **local name:** Paramsali Jola. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5681C. SC 472. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 534017 **donor id:** IS 5804C. **origin:** India. **pedigree:** SC 460/3/4-dwarf Martin B line/SC 460/2/SC 460*2/4/SC 460. **local name:** Safed Bedranarsingharh. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5804C. SC 460. Fertility reaction Restorer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.
- PI 534018 **donor id:** IS 5867C. **origin:** India. **pedigree:** SC 462/3/4-dwarf Martin B line/SC 462/2/SC 462*2/4/SC 462. **local name:** Darrayan Sama. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5867C. SC 462. Fertility reaction Restorer. Released in 1986. **RACE** 41:Durra. **Breeding Material.** Seed.
- PI 534019 **donor id:** IS 5893C. **origin:** India. **pedigree:** SC 514/3/4-dwarf Martin B line/SC 514/2/SC 514*2/4/SC 514. **local name:** Gunda Jesa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5893C. SC 514. Fertility reaction Restorer. Released in 1986. **RACE Group** 1:Roxburghii. **Breeding Material.** Seed.
- PI 534020 **donor id:** IS 5978C. **origin:** India. **pedigree:** SC 899/3/4-dwarf Martin B line/SC 899/2/SC 899*2/4/SC 899. **local name:** Safed Bedra Hirawda. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 5978C. SC 899. Fertility reaction maintainer. Released in 1986. **RACE Group** 41:Durra. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 534021 **donor id:** IS 6356C. **origin:** India. **pedigree:** SC 587/3/4-dwarf Martin B line/SC 587/2/SC 587*2/4/SC 587. **local name:** Jola Nandyal. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6356C. SC 587. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. Breeding Material. Seed.
- PI 534022 **donor id:** IS 6368C. **origin:** India. **pedigree:** SC 475/3/4-dwarf Martin B line/SC 475/2/SC 475*2/4/SC 475. **local name:** Jola Nandyal. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6368C. SC 475. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. Breeding Material. Seed.
- PI 534023 **donor id:** IS 6388C. **origin:** India. **pedigree:** SC 589/3/4-dwarf Martin B line/SC 589/2/SC 589*2/4/SC 589. **local name:** Jola Nandyal. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6388C. SC 589. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. Breeding Material. Seed.
- PI 534024 **donor id:** IS 6392C. **origin:** India. **pedigree:** SC 490/3/4-dwarf Martin B line/SC 490/2/SC 490*2/4/SC 490. **local name:** Jola Nandyal. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6392C. SC 490. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. Breeding Material. Seed.
- PI 534025 **donor id:** IS 6394C. **origin:** India. **pedigree:** SC 491/3/4-dwarf Martin B line/SC 491/2/SC 491*2/4/SC 491. **local name:** Jondla Gidgap. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6394C. SC 491. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. Breeding Material. Seed.
- PI 534026 **donor id:** IS 6398C. **origin:** India. **pedigree:** SC 477/3/4-dwarf Martin B line/SC 477/2/SC 477*2/4/SC 477. **local name:** Jondla Gidgap. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6398C. SC 477. Fertility reaction partial restorer. Released in 1986. **RACE Group** 46(1):Nandyal. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534027 donor id: IS 6402C. origin: India. pedigree: SC
492/3/4-dwarf Martin B line/SC 492/2/SC 492*2/4/SC 492.
local name: Jowar Kalgundi. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 6402C. SC 492. Fertility
reaction Restorer. Released in 1986. RACE Group
46(1):Nandyal. Breeding Material. Seed.
- PI 534028 donor id: IS 6404C. origin: India. pedigree: SC
473/3/4-dwarf Martin B line/SC 473/2/SC 473*2/4/SC 473.
local name: Jonar Tamargundi. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 6404C. SC 473. Fertility
reaction Restorer. Released in 1986. RACE Group
46(1):Nandyal. Breeding Material. Seed.
- PI 534029 donor id: IS 6405C. origin: India. pedigree: SC
924/3/4-dwarf Martin B line/SC 924/2/SC 924*2/4/SC 924.
local name: Jowar Tamargundi. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 6405C. SC 924. Fertility
reaction Restorer. Released in 1986. RACE Group
46(1):Nandyal. Breeding Material. Seed.
- PI 534030 donor id: IS 6411C. origin: India. pedigree: SC
494/3/4-dwarf Martin B line/SC 494/2/SC 494*2/4/SC 494.
local name: Jowar Kalgundi. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 6411C. SC 494. Fertility
reaction Restorer. Released in 1986. RACE Group
46(1):Nandyal. Breeding Material. Seed.
- PI 534031 donor id: IS 6414C. origin: India. pedigree: SC
464/3/4-dwarf Martin B line/SC 464/2/SC 464*2/4/SC 464.
local name: Jowar Kalgundi. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 6414C. SC 464. Fertility
reaction Restorer. Released in 1986. RACE Group
41:Durra. Breeding Material. Seed.
- PI 534032 donor id: IS 6423C. origin: India. pedigree: SC
496/3/4-dwarf Martin B line/SC 496/2/SC 496*2/4/SC 496.
local name: Jowar Shenoli 4-5. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 6423C. SC 496. Fertility
reaction Restorer. Released in 1986. RACE Group
46(1):Nandyal. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534033 **donor id:** IS 6426C. **origin:** India. **pedigree:** SC 497/3/4-dwarf Martin B line/SC 497/2/SC 497*2/4/SC 497. **local name:** Jowar Shenoli 4-5. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6426C. SC 497. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. **Breeding Material.** Seed.
- PI 534034 **donor id:** IS 6445C. **origin:** India. **pedigree:** SC 483/3/4-dwarf Martin B line/SC 483/2/SC 483*2/4/SC 483. **local name:** Karad Local. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6445C. SC 483. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. **Breeding Material.** Seed.
- PI 534035 **donor id:** IS 6446C. **origin:** India. **pedigree:** SC 586/3/4-dwarf Martin B line/SC 586/2/SC 586*2/4/SC 586. **local name:** Karad Local. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6446C. SC 586. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. **Breeding Material.** Seed.
- PI 534036 **donor id:** IS 6451C. **origin:** India. **pedigree:** SC 484/3/4-dwarf Martin B line/SC 484/2/SC 484*2/4/SC 484. **local name:** Shenoli Local. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6451C. SC 484. Fertility reaction Restorer. Released in 1986. **RACE Group** 46(1):Nandyal. **Breeding Material.** Seed.
- PI 534037 **donor id:** IS 6842C. **origin:** Chad. **pedigree:** SC 305/3/4-dwarf Martin B line/SC 305/2/SC 305*2/4/SC 305. **local name:** 6428 Sian. **other id:** PI 282868 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6842C. SC 305. Fertility reaction Restorer. Released in 1986. **RACE Group** 6:Membranaceum. **Breeding Material.** Seed.
- PI 534038 **donor id:** IS 6903C. **origin:** Sudan. **pedigree:** SC 687/3/4-dwarf Martin B line/SC 687/2/SC 687*2/4/SC 687. **local name:** 65 Lwel Fadieng 2. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6903C. SC 687. Fertility reaction Restorer. Released in 1986. **RACE Group** 31(1):Dobbs. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 534039 **donor id:** IS 6911C. **origin:** Sudan. **pedigree:** SC 715/3/4-dwarf Martin B line/SC 715/2/SC 715*2/4/SC 715. **local name:** Jowar Kalgundi. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6911C. SC 715. Fertility reaction maintainer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534040 **donor id:** IS 6917C. **origin:** Sudan. **pedigree:** SC 736/3/4-dwarf Martin B line/SC 736/2/SC 736*2/4/SC 736. **local name:** Bargawi. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6917C. SC 736. Fertility reaction partial restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534041 **donor id:** IS 6946C. **origin:** Sudan. **pedigree:** SC 763/3/4-dwarf Martin B line/SC 763/2/SC 763*2/4/SC 763. **local name:** Koriariga. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6946C. SC 763. Fertility reaction Restorer. Released in 1986. RACE Group 38:Caud-Kaf. Breeding Material. Seed.
- PI 534042 **donor id:** IS 6962C. **origin:** Sudan. **pedigree:** SC 352/3/4-dwarf Martin B line/SC 352/2/SC 352*2/4/SC 352. **local name:** 252 Ain-EL-Laong. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6962C. SC 352. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534043 **donor id:** IS 6968C. **origin:** Sudan. **pedigree:** SC 804/3/4-dwarf Martin B line/SC 804/2/SC 804*2/4/SC 804. **local name:** 263 Monshall. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6968C. SC 804. RACE Group 39:Caud-Nig. Breeding Material. Seed.
- PI 534044 **donor id:** IS 6984C. **origin:** Sudan. **pedigree:** SC 338/3/4-dwarf Martin B line/SC 338/2/SC 338*2/4/SC 338. **local name:** 309 Feterito Fulli 3. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6984C. SC 338. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534045 **donor id:** IS 6992C. **origin:** Sudan. **pedigree:** SC 727/3/4-dwarf Martin B line/SC 727/2/SC 727*2/4/SC 727. **local name:** Tado. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 6992C. SC 727. Fertility reaction Restorer. Released in 1986. **RACE Group** 33:Caudatum. **Breeding Material.** Seed.
- PI 534046 **donor id:** IS 7005C. **origin:** Sudan. **pedigree:** SC 679/3/4-dwarf Martin B line/SC 679/2/SC 679*2/4/SC 679. **local name:** 420 Kalatilansa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7005C. SC 679. Fertility reaction partial restorer. Released in 1986. **RACE Group** 30(2):Nigr-Guin. **Breeding Material.** Seed.
- PI 534047 **donor id:** IS 7013C. **origin:** Sudan. **pedigree:** SC 719/3/4-dwarf Martin B line/SC 719/2/SC 719*2/4/SC 719. **local name:** 450 Reri Light Brown. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7013C. SC 719. Fertility reaction Restorer. Released in 1986. **RACE Group** 33:Caudatum. **Breeding Material.** Seed.
- PI 534048 **donor id:** IS 7041C. **origin:** Sudan. **pedigree:** SC 906/3/4-dwarf Martin B line/SC 906/2/SC 906*2/4/SC 906. **local name:** 520 Final Bulk Wad Akr 3. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7041C. SC 906. Fertility reaction Restorer. Released in 1986. **RACE Group** 33:Caudatum. **Breeding Material.** Seed.
- PI 534049 **donor id:** IS 7050C. **origin:** Sudan. **pedigree:** SC 732/3/4-dwarf Martin B line/SC 732/2/SC 732*2/4/SC 732. **local name:** OTB 21 Wad Akr. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7050C. SC 732. Fertility reaction Restorer. Released in 1986. **RACE Group** 33:Caudatum. **Breeding Material.** Seed.
- PI 534050 **donor id:** IS 7088C. **origin:** Burkina Faso. **pedigree:** SC 691/3/4-dwarf Martin B line/SC 691/2/SC 691*2/4/SC 691. **local name:** 78 SBI 140. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7088C. SC 691. Fertility reaction Restorer. Released in 1986. **RACE Group** 31:Nigr-Fet. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 534051 donor id: IS 7093C. origin: Burkina Faso. pedigree: SC 726/3/4-dwarf Martin B line/SC 726/2/SC 726*2/4/SC 726. local name: SBI 17. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7093C. SC 726. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534052 donor id: IS 7132C. origin: Uganda. pedigree: SC 693/3/4-dwarf Martin B line/SC 693/2/SC 693*2/4/SC 693. local name: 153L 18. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7132C. SC 693. Fertility reaction Restorer. Released in 1986. RACE Group 31(1):Dobbs. Breeding Material. Seed.
- PI 534053 donor id: IS 7142C. origin: Uganda. pedigree: SC 564/3/4-dwarf Martin B line/SC 564/2/SC 564*2/4/SC 564. local name: T 28. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7142C. SC 564. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534054 donor id: IS 7148C. origin: Kenya. pedigree: SC 671/3/4-dwarf Martin B line/SC 671/2/SC 671*2/4/SC 671. local name: 194 Kano. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7148C. SC 671. Fertility reaction maintainer. Released in 1986. RACE Group 27:Caffr-Fet. Breeding Material. Seed.
- PI 534055 donor id: IS 7189C. origin: Niger. pedigree: SC 565/3/4-dwarf Martin B line/SC 565/2/SC 565*2/4/SC 565. local name: Andro Pagam. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7189C. SC 565. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534056 donor id: IS 7193C. origin: Nigeria. pedigree: SC 694/3/4-dwarf Martin B line/SC 694/2/SC 694*2/4/SC 694. local name: Nadjada Salamat. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7193C. SC 694. Fertility reaction Restorer. Released in 1986. RACE Group 31(1):Dobbs. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534057 donor id: IS 7223C. origin: Nigeria. pedigree: SC 428/3/4-dwarf Martin B line/SC 428/2/SC 428*2/4/SC 428. local name: Kaum Awonzuma. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7223C. SC 428. Fertility reaction Restorer. Released in 1986. RACE Group 40:Caud-Durra. Breeding Material. Seed.
- PI 534058 donor id: IS 7267C. origin: Nigeria. pedigree: SC 269/3/4-dwarf Martin B line/SC 269/2/SC 269*2/4/SC 269. local name: AD 3 Nyanyiri. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7267C. SC 269. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534059 donor id: IS 7271C. origin: Nigeria. pedigree: SC 270/3/4-dwarf Martin B line/SC 270/2/SC 270*2/4/SC 270. local name: AD 7. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7271C. SC 270. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534060 donor id: IS 7282C. origin: Nigeria. pedigree: SC 351/3/4-dwarf Martin B line/SC 351/2/SC 351*2/4/SC 351. local name: AD 18. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7282C. SC 351. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534061 donor id: IS 7292C. origin: Nigeria. pedigree: SC 733/3/4-dwarf Martin B line/SC 733/2/SC 733*2/4/SC 733. local name: AD 28. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7292C. SC 733. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534062 donor id: IS 7301C. origin: Nigeria. pedigree: SC 273/3/4-dwarf Martin B line/SC 273/2/SC 273*2/4/SC 273. local name: AD 40. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7301C. SC 273. Fertility reaction maintainer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534063 donor id: IS 7333C. origin: Nigeria. pedigree: SC
553/3/4-dwarf Martin B line/SC 553/2/SC 553*2/4/SC 553.
local name: BO 36. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7333C. SC 553. Fertility reaction Restorer. Released
in 1986. RACE Group 6:Membranaceum. Breeding Material.
Seed.
- PI 534064 donor id: IS 7335C. origin: Nigeria. pedigree: SC
342/3/4-dwarf Martin B line/SC 342/2/SC 342*2/4/SC 342.
local name: BO 39. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7335C. SC 342. Fertility reaction Restorer. Released
in 1986. RACE Group 33:Caudatum. Breeding Material.
Seed.
- PI 534065 donor id: IS 7361C. origin: Nigeria. pedigree: SC
275/3/4-dwarf Martin B line/SC 275/2/SC 275*2/4/SC 275.
local name: BA 2. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7361C. SC 275. Fertility reaction Restorer. Released
in 1986. RACE Group 34:Caud-Kaura. Breeding Material.
Seed.
- PI 534066 donor id: IS 7362C. origin: Nigeria. pedigree: SC
393/3/4-dwarf Martin B line/SC 393/2/SC 393*2/4/SC 393.
local name: BA 4. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7362C. SC 393. Fertility reaction Restorer. Released
in 1986. RACE Group 41:Durra. Breeding Material. Seed.
- PI 534067 donor id: IS 7377C. origin: Nigeria. pedigree: SC
277/3/4-dwarf Martin B line/SC 277/2/SC 277*2/4/SC 277.
local name: BA 20. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7377C. SC 277. Fertility reaction Restorer. Released
in 1986. RACE Group 3:Conspicuum. Breeding Material.
Seed.
- PI 534068 donor id: IS 7399C. origin: Nigeria. pedigree: SC
905/3/4-dwarf Martin B line/SC 905/2/SC 905*2/4/SC 905.
local name: BE 2. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 7399C. SC 905. Fertility reaction Restorer. Released
in 1986. RACE Group 41:Durra. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534069 donor id: IS 7416C. origin: Nigeria. pedigree: SC 544/3/4-dwarf Martin B line/SC 544/2/SC 544*2/4/SC 544. local name: BE 22. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7416C. SC 544. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534070 donor id: IS 7419C. origin: Nigeria. pedigree: SC 279/3/4-dwarf Martin B line/SC 279/2/SC 279*2/4/SC 279. local name: BE 25. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7419C. SC 279. Fertility reaction partial restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534071 donor id: IS 7421C. origin: Nigeria. pedigree: SC 543/3/4-dwarf Martin B line/SC 543/2/SC 543*2/4/SC 543. local name: BE 27. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7421C. SC 543. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534072 donor id: IS 7429C. origin: Nigeria. pedigree: SC 545/3/4-dwarf Martin B line/SC 545/2/SC 545*2/4/SC 545. local name: BE 36. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7429C. SC 545. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534073 donor id: IS 7438C. origin: Nigeria. pedigree: SC 345/3/4-dwarf Martin B line/SC 345/2/SC 345*2/4/SC 345. local name: KA 6. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7438C. SC 345. Fertility reaction Restorer. Released in 1986. RACE Group 33:Caudatum. Breeding Material. Seed.
- PI 534074 donor id: IS 7449C. origin: Nigeria. pedigree: SC 347/3/4-dwarf Martin B line/SC 347/2/SC 347*2/4/SC 347. local name: KA 17. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7449C. SC 347. Fertility reaction Restorer. Released in 1986. RACE Group 34:Caud-Kaura. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534075 donor id: IS 7455C. origin: Nigeria. pedigree: SC 348/3/4-dwarf Martin B line/SC 348/2/SC 348*2/4/SC 348. local name: KA 24. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7455C. SC 348. Fertility reaction Restorer. Released in 1986. RACE Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 534076 donor id: IS 7505C. origin: Nigeria. pedigree: SC 397/3/4-dwarf Martin B line/SC 397/2/SC 397*2/4/SC 397. local name: KO 22. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7505C. SC 397. Fertility reaction Restorer. Released in 1986. RACE Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 534077 donor id: IS 7550C. origin: Nigeria. pedigree: SC 546/3/4-dwarf Martin B line/SC 546/2/SC 546*2/4/SC 546. local name: PL 15. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7550C. SC 546. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534078 donor id: IS 7565C. origin: Nigeria. pedigree: SC 519/3/4-dwarf Martin B line/SC 519/2/SC 519*2/4/SC 519. local name: PL 30. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7565C. SC 519. Fertility reaction Restorer. Released in 1986. RACE Group 3: Conspicuum. Breeding Material. Seed.
- PI 534079 donor id: IS 7577C. origin: Nigeria. pedigree: SC 413/3/4-dwarf Martin B line/SC 413/2/SC 413*2/4/SC 413. local name: PL 47. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7577C. SC 413. Fertility reaction partial restorer. Released in 1986. RACE Group 37:Caud-Dochna. Breeding Material. Seed.
- PI 534080 donor id: IS 7595C. origin: Nigeria. pedigree: SC 520/3/4-dwarf Martin B line/SC 520/2/SC 520*2/4/SC 520. local name: NG 17. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7595C. SC 520. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534081 **donor id:** IS 7611C. **origin:** Nigeria. **pedigree:** SC 522/3/4-dwarf Martin B line/SC 522/2/SC 522*2/4/SC 522. **local name:** NG 36. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7611C. SC 522. Fertility reaction Restorer. Released in 1986. **RACE** Group 3:Conspicuum. Breeding Material. Seed.
- PI 534082 **donor id:** IS 7626C. **origin:** Nigeria. **pedigree:** SC 377/3/4-dwarf Martin B line/SC 377/2/SC 377*2/4/SC 377. **local name:** NG 52. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7626C. SC 377. Fertility reaction Restorer. Released in 1986. **RACE** Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 534083 **donor id:** IS 7633C. **origin:** Nigeria. **pedigree:** SC 523/3/4-dwarf Martin B line/SC 523/2/SC 523*2/4/SC 523. **local name:** NG 60. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7633C. SC 523. Fertility reaction Restorer. Released in 1986. **RACE** Group 3:Conspicuum. Breeding Material. Seed.
- PI 534084 **donor id:** IS 7668C. **origin:** Nigeria. **pedigree:** SC 536/3/4-dwarf Martin B line/SC 536/2/SC 536*2/4/SC 536. **local name:** NG 101. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7668C. SC 536. Fertility reaction Restorer. Released in 1986. **RACE** Group 3:Conspicuum. Breeding Material. Seed.
- PI 534085 **donor id:** IS 7695C. **origin:** Nigeria. **pedigree:** SC 280/3/4-dwarf Martin B line/SC 280/2/SC 280*2/4/SC 280. **local name:** NG 132. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7695C. SC 280. Fertility reaction Restorer. Released in 1986. **RACE** Group 3:Conspicuum. Breeding Material. Seed.
- PI 534086 **donor id:** IS 7696C. **origin:** Nigeria. **pedigree:** SC 526/3/4-dwarf Martin B line/SC 526/2/SC 526*2/4/SC 526. **local name:** NG 133. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7696C. SC 526. Fertility reaction Restorer. Released in 1986. **RACE** Group 3:Conspicuum. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534087 donor id: IS 7715C. origin: Nigeria. pedigree: SC 527/3/4-dwarf Martin B line/SC 527/2/SC 527*2/4/SC 527. local name: NG 152. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7715C. SC 527. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuūm. Breeding Material. Seed.
- PI 534088 donor id: IS 7724C. origin: Nigeria. pedigree: SC 382/3/4-dwarf Martin B line/SC 382/2/SC 382*2/4/SC 382. local name: ZA 6. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7724C. SC 382. Fertility reaction Restorer. Released in 1986. RACE Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 534089 donor id: IS 7736C. origin: Nigeria. pedigree: SC 384/3/4-dwarf Martin B line/SC 384/2/SC 384*2/4/SC 384. local name: ZA 19. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7736C. SC 384. Fertility reaction partial restorer. Released in 1986. RACE Group 34:Caud-Kaura. Breeding Material. Seed.
- PI 534090 donor id: IS 7757C. origin: Nigeria. pedigree: SC 529/3/4-dwarf Martin B line/SC 529/2/SC 529*2/4/SC 529. local name: ZA 45. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7757C. SC 529. Fertility reaction Restorer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534091 donor id: IS 7779C. origin: Nigeria. pedigree: SC 538/3/4-dwarf Martin B line/SC 538/2/SC 538*2/4/SC 538. local name: ZA 70. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7779C. SC 538. Fertility reaction maintainer. Released in 1986. RACE Group 3:Conspicuum. Breeding Material. Seed.
- PI 534092 donor id: IS 7780C. origin: Nigeria. pedigree: SC 569/3/4-dwarf Martin B line/SC 569/2/SC 569*2/4/SC 569. local name: ZA 71. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7780C. SC 569. Fertility reaction Restorer. Released in 1986. RACE Group 34:Caud-Kaura. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534093 **donor id:** IS 7794C. **origin:** Nigeria. **pedigree:** SC 567/3/4-dwarf Martin B line/SC 567/2/SC 567*2/4/SC 567. **local name:** ZA 85. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7794C. SC 567. Fertility reaction Restorer. Released in 1986. **RACE** Group 33:Caudatum. **Breeding Material.** Seed.
- PI 534094 **donor id:** IS 7864C. **origin:** Nigeria. **pedigree:** SC 541/3/4-dwarf Martin B line/SC 541/2/SC 541*2/4/SC 541. **local name:** IN 34. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7864C. SC 541. Fertility reaction maintainer. Released in 1986. **RACE** Group 3:Conspicuum. **Breeding Material.** Seed.
- PI 534095 **donor id:** IS 7947C. **origin:** Nigeria. **pedigree:** SC 300/3/4-dwarf Martin B line/SC 300/2/SC 300*2/4/SC 300. **local name:** SO 47. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7947C. SC 300. Fertility reaction Restorer. Released in 1986. **RACE** Group 3:Conspicuum. **Breeding Material.** Seed.
- PI 534096 **donor id:** IS 7979C. **origin:** Mali. **pedigree:** SC 605/3/4-dwarf Martin B line/SC 605/2/SC 605*2/4/SC 605. **local name:** SO 85. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 7979C. SC 605. Fertility reaction maintainer. Released in 1986. **RACE** Group 5:Margaretiferum. **Breeding Material.** Seed.
- PI 534097 **donor id:** IS 8003C. **origin:** Japan. **pedigree:** SC 625/3/4-dwarf Martin B line/SC 625/2/SC 625*2/4/SC 625. **local name:** HC 6028. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8003C. SC 625. Fertility reaction maintainer. Released in 1986. **RACE** Group 22:Caffrorum. **Breeding Material.** Seed.
- PI 534098 **donor id:** IS 8004C. **origin:** Japan. **pedigree:** SC 626/3/4-dwarf Martin B line/SC 626/2/SC 626*2/4/SC 626. **local name:** HC 6029. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8004C. SC 626. Fertility reaction maintainer. Released in 1986. **RACE** Group 22:Caffrorum. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 534099 donor id: IS 8087C. origin: Japan. pedigree: SC
704/3/4-dwarf Martin B line/SC 704/2/SC 704*2/4/SC 704.
local name: A 84. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 8087C. SC 704. Fertility reaction Restorer. Released
in 1986. RACE Group 33:Caudatum. Breeding Material.
Seed.
- PI 534100 donor id: IS 8107C. origin: Japan. pedigree: SC
721/3/4-dwarf Martin B line/SC 721/2/SC 721*2/4/SC 721.
local name: A-103. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 8107C. SC 721. Fertility reaction Restorer. Released
in 1986. RACE Group 33:Caudatum. Breeding Material.
Seed.
- PI 534101 donor id: IS 8112C. origin: Japan. pedigree: SC
725/3/4-dwarf Martin B line/SC 725/2/SC 725*2/4/SC 725.
local name: A-106. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 8112C. SC 725. Fertility reaction Restorer. Released
in 1986. RACE Group 33:Caudatum. Breeding Material.
Seed.
- PI 534102 donor id: IS 8134C. origin: India. pedigree: SC
590/3/4-dwarf Martin B line/SC 590/2/SC 590*2/4/SC 590.
local name: EC 21322 AL. remarks: Plants short-statured,
generally 4- or 3- dwarf height. photoperiod insensitive.
IS 8134C. SC 590. Fertility reaction partial restorer.
Released in 1986. RACE Group 47:Durra-Nig. Breeding
Material. Seed.
- PI 534103 donor id: IS 8160C. origin: India. pedigree: SC
601/3/4-dwarf Martin B line/SC 601/2/SC 601*2/4/SC 601.
local name: EC 21352 G19. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 8160C. SC 601. Fertility
reaction maintainer. Released in 1986. RACE Group
1:Roxburghii. Breeding Material. Seed.
- PI 534104 donor id: IS 8166C. origin: India. pedigree: SC
641/3/4-dwarf Martin B line/SC 641/2/SC 641*2/4/SC 641.
local name: EC 21360 G29. remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. IS 8166C. SC 641. Fertility
reaction maintainer. Released in 1986. RACE Group
23:Caffr-Darso. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534105 **donor id:** IS 8167C. **origin:** India. **pedigree:** SC 637/3/4-dwarf Martin B line/SC 637/2/SC 637*2/4/SC 637. **local name:** EC 21361 G30. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8167C. SC 637. Fertility reaction maintainer. Released in 1986. **RACE Group** 23:Caffr-Darso. **Breeding Material.** Seed.
- PI 534106 **donor id:** IS 8187C. **origin:** India. **pedigree:** SC 330/3/4-dwarf Martin B line/SC 330/2/SC 330*2/4/SC 330. **local name:** EC 21382 J75. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8187C. SC 330. Fertility reaction Restorer. Released in 1986. **RACE Group** 31:Nigr-Fet. **Breeding Material.** Seed.
- PI 534107 **donor id:** IS 8191C. **origin:** India. **pedigree:** SC 646/3/4-dwarf Martin B line/SC 646/2/SC 646*2/4/SC 646. **local name:** EC 21388 KA 2. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8191C. SC 646. Fertility reaction maintainer. Released in 1986. **RACE Group** 24:Cafforum-Bridproff. **Breeding Material.** Seed.
- PI 534108 **donor id:** IS 8231C. **origin:** India. **pedigree:** SC 645/3/4-dwarf Martin B line/SC 645/2/SC 645*2/4/SC 645. **local name:** EC 21428 SB 63. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8231C. SC 645. Fertility reaction Restorer. Released in 1986. **RACE Group** 23:Caffr-Darso. **Breeding Material.** Seed.
- PI 534109 **donor id:** IS 8232C. **origin:** India. **pedigree:** SC 642/3/4-dwarf Martin B line/SC 642/2/SC 642*2/4/SC 642. **local name:** EC 21429 SB 65. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8232C. SC 642. Fertility reaction Restorer. Released in 1986. **RACE Group** 23:Caffr-Darso. **Breeding Material.** Seed.
- PI 534110 **donor id:** IS 8233C. **origin:** India. **pedigree:** SC 643/3/4-dwarf Martin B line/SC 643/2/SC 643*2/4/SC 643. **local name:** EC 21431 SB 68. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8233C. SC 643. Fertility reaction maintainer. Released in 1986. **RACE Group** 23:Caffr-Darso. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 534111 **donor id:** IS 8237C. **origin:** India. **pedigree:** SC 644/3/4-dwarf Martin B line/SC 644/2/SC 644*2/4/SC 644. **local name:** EC 21434 SB 77. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8237C. SC 644. Fertility reaction maintainer. Released in 1986. **RACE** Group 23:Caffr-Darso. Breeding Material. Seed.
- PI 534112 **donor id:** IS 8263C. **origin:** India. **pedigree:** SC 328/3/4-dwarf Martin B line/SC 328/2/SC 328*2/4/SC 328. **local name:** EC 21463 STR 5/1. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8263C. SC 328. Fertility reaction Restorer. Received through India. Released 1986. **RACE** Group 31(1):Dobbs. Breeding Material. Seed.
- PI 534113 **donor id:** IS 8266C. **origin:** India. **pedigree:** SC 686/3/4-dwarf Martin B line/SC 686/2/SC 686*2/4/SC 686. **local name:** EC 21466 STR 5/7. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8266C. SC 686. Fertility reaction Restorer. Released in 1986. **RACE** Group 31(1):Dobbs. Breeding Material. Seed.
- PI 534114 **donor id:** IS 8337C. **origin:** Pakistan. **pedigree:** SC 574/3/4-dwarf Martin B line/SC 574/2/SC 574*2/4/SC 574. **local name:** Accho Karuho. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 8337C. SC 574. Fertility reaction Restorer. Released in 1986. Grain type. **RACE** Group 39:Caud-Nig. Breeding Material. Seed.
- PI 534115 **donor id:** IS 12158C. **origin:** Ethiopia. **pedigree:** SC 984/3/4-dwarf Martin B line/SC 984/2/SC 984*2/4/SC 984. **local name:** Akwu. **other id:** PI 330874 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12158C. SC 984. Fertility reaction Restorer. Released in 1986. **RACE** Group 39(1):Zerazera. Breeding Material. Seed.
- PI 534116 **donor id:** IS 12179C. **origin:** Ethiopia. **pedigree:** SC 987/3/4-dwarf Martin B line/SC 987/2/SC 987*2/4/SC 987. **local name:** Mashica. **other id:** PI 330877 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12179C. SC 987. Fertility reaction Restorer. Released in 1986. **RACE** Group 50-52:Sub-Sudan. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534117 **donor id:** IS 12219C. **origin:** Uganda. **pedigree:** SC 991/3/4-dwarf Martin B line/SC 991/2/SC 991*2/4/SC 991. **local name:** Mashica. **other id:** PI 330981 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12219C. SC 991. Fertility reaction maintainer. Released in 1986. **RACE** Group 10:Bicolor. Breeding Material. Seed.
- PI 534118 **donor id:** IS 12522C. **origin:** Ethiopia. **pedigree:** SC 2/3/4-dwarf Martin B Line/SC 2/2/SC 2*2/4/SC 2. **local name:** Fandish No. 14 Karoa, Chercher Ethiopia. **other id:** PI 147826 (preconverted). **other id:** MN 616 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12522C. SC 2. Fertility reaction partial restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 534119 **donor id:** IS 12524C. **origin:** Ethiopia. **pedigree:** SC 4/3/4-dwarf Martin B line/SC 4/2/SC 4*2/4/SC 4. **local name:** Mehaisuge No. 1 Djello, Due Dawa Ethiopia. **other id:** PI 147829 (preconverted). **other id:** MN 618 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12524C. SC 4. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 534120 **donor id:** IS 12527C. **origin:** Ethiopia. **pedigree:** SC 7/3/4-dwarf Martin B line/SC 7/2/SC 7*2/4/SC 7. **local name:** Sumac No. 2, Baijo, Shoa, Ethiopia. **other id:** PI 147838 (preconverted). **other id:** MN 605 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12527C. SC 7. Fertility reaction maintainer. Released in 1986. **RACE** Group 45:Durra-Doch. Breeding Material. Seed.
- PI 534121 **donor id:** IS 12530C. **origin:** Ethiopia. **pedigree:** SC 10/3/4-dwarf Martin B line/SC 10/2/SC 10*2/4/SC 10. **local name:** No. 23 Djengwol, Ankober Ethiopia. **other id:** PI 147919 (preconverted). **other id:** MN 625 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12530C. SC 10. Fertility reaction Restorer. Released in 1986. **RACE** Group 41-50:Durra-Sub. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534122 **donor id:** IS 12532C. **origin:** Ethiopia. **pedigree:** SC 12/3/4-dwarf Martin B line/SC 12/2/SC 12*2/4/SC 12. **local name:** No. 34 Facho, Kubunti Ethiopia. **other id:** PI 147922 (preconverted). **other id:** MN 636 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12532C. SC 12. Fertility reaction partial restorer. Released in 1986. **RACE** Group 14:Doch-Amber. **Breeding Material.** Seed.
- PI 534123 **donor id:** IS 12533C. **origin:** Ethiopia. **pedigree:** SC 13/3/4-dwarf Martin B line/SC 13/2/SC 13*2/4/SC 13. **local name:** No. 25 Gobo, Kaichama Ethiopia. **other id:** PI 147926 (preconverted). **other id:** MN 627 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12533C. SC 13. Fertility reaction partial restorer. Released in 1986. **RACE** Group 41-50:Durra-Sub. **Breeding Material.** Seed.
- PI 534124 **donor id:** IS 12535C. **origin:** Ethiopia. **pedigree:** SC 15/3/4-dwarf Martin B line/SC 15/2/SC 15*2/4/SC 15. **local name:** No. 28 Lyle, Marawa Ethiopia. **other id:** PI 147930 (preconverted). **other id:** MN 630 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12535C. SC 15. Fertility reaction maintainer. Released in 1986. **RACE** Group 16:Doch-Honey. **Breeding Material.** Seed.
- PI 534125 **donor id:** IS 12536C. **origin:** Ethiopia. **pedigree:** SC 16/3/4-dwarf Martin B line/SC 16/2/SC 16*2/4/SC 16. **local name:** No. 30 Maho, Verso, Sakoru Ethiopia. **other id:** PI 147933 (preconverted). **other id:** MN 632 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12536C. SC 16. Fertility reaction Restorer. Released in 1986. **RACE** Group 14:Doch-Honey. **Breeding Material.** Seed.
- PI 534126 **donor id:** IS 12540C. **origin:** Ethiopia. **pedigree:** SC 20/3/4-dwarf Martin B line/SC 20/2/SC 20*2/4/SC 20. **local name:** No. 36 Zangada, Tinkush, Abelti Ethiopia. **other id:** PI 147939 (preconverted). **other id:** MN 638 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12540C. SC 20. Fertility reaction partial restorer. Released in 1986. **RACE** Group 14:Doch-Honey. **Breeding Material.** Seed.

PI 533928 to 534167-continued

- PI 534127 donor id: IS 12541C. origin: Ethiopia. pedigree: SC 21/3/4-dwarf Martin B line/SC 21/2/SC 21*2/4/SC 21. local name: No. 37 Ubi, Abelti Ethiopia. other id: PI 147938 (preconverted). other id: MN 639 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12541C. SC 21. Fertility reaction maintainer. Released in 1986. RACE Group 18:Doch-Kafir. Breeding Material. Seed.
- PI 534128 donor id: IS 12543C. origin: Ethiopia. pedigree: SC 23/3/4-dwarf Martin B line/SC 23/2/SC 23*2/4/SC 23. local name: No. 65 Amelsie, Kimbolcha Ethiopia. other id: PI 148084 (preconverted). other id: MN 689 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12543C. SC 23. Fertility reaction Restorer. Released in 1986. RACE Group 41:Durra. Breeding Material. Seed.
- PI 534129 donor id: IS 12544C. origin: Ethiopia. pedigree: SC 24/3/4-dwarf Martin B line/SC 24/2/SC 24*2/4/SC 24. local name: No. 53 Bahetio, Djib Wuku Ethiopia. other id: PI 148085 (preconverted). other id: MN 677 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12544C. SC 24. Fertility reaction Restorer. Released in 1986. RACE Group 41:Durra. Breeding Material. Seed.
- PI 534130 donor id: IS 12548C. origin: Ethiopia. pedigree: SC 28/3/4-dwarf Martin B line/SC 28/2/SC 28*2/4/SC 28. local name: No 54 Buketie, Wara Kariya Ethiopia. other id: PI 148089 (preconverted). other id: MN 678 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12548C. SC 28. Fertility reaction Restorer. Released in 1986. RACE Group 41:Durra. Breeding Material. Seed.
- PI 534131 donor id: IS 12550C. origin: Ethiopia. pedigree: SC 30/3/4-dwarf Martin B line/SC 30/2/SC 30*2/4/SC 30. local name: No. 78 Geletie, Djib Waku Ethiopia. other id: PI 148097 (preconverted). other id: MN 702 (preconverted). remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12550C. SC 30. Fertility reaction partial restorer. Released in 1986. RACE Group 44:Durra-Bicolor. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534132 **donor id:** IS 12553C. **origin:** Ethiopia. **pedigree:** SC 33/3/4-dwarf Martin B line/SC 33/2/SC 33*2/4/SC 33. **local name:** No. 59 Bekedjie, Kembolcha Ethiopia. **other id:** PI 148101 (preconverted). **other id:** MN 683 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12553C. SC 33. Fertility reaction Restorer. Released in 1986. **RACE** Group 44:Durra. Breeding Material. Seed.
- PI 534133 **donor id:** IS 12555C. **origin:** Ethiopia. **pedigree:** SC 35/3/4-dwarf Martin B line/SC 35/2/SC 35*2/4/SC 35. **local name:** No. 69 Mashela Tinguish, Warakul Ethiopia. **other id:** PI 148104 (preconverted). **other id:** MN 693 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12555C. SC 35. Fertility reaction Restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 534134 **donor id:** IS 12557C. **origin:** Ethiopia. **pedigree:** SC 37/3/4-dwarf Martin B line/SC 37/2/SC 37*2/4/SC 37. **local name:** No. 61 Motei, Kembolcha Ethiopia. **other id:** PI 148106 (preconverted). **other id:** MN 685 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 12557C. SC 37. Fertility reaction maintainer. Released 1986. **RACE** Group 44:Durra-Bic. Breeding Material. Seed.
- PI 534135 **donor id:** IS 12558C. **origin:** Ethiopia. **pedigree:** SC 38/3/4-dwarf Martin B line/SC 38/2/SC 38*2/4/SC 38. **local name:** No. 64 Netch Addesho Ethiopia. **other id:** PI 148108 (preconverted). **other id:** MN 688 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12558C. SC 38. Fertility reaction partial restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 534136 **donor id:** IS 12562C. **origin:** Ethiopia. **pedigree:** SC 43/3/4-dwarf Martin B line/SC 43/2/SC 43*/4/SC 43. **local name:** Durra. **other id:** PI 151198 (preconverted). **other id:** MN 712 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 12562C. SC 43. Fertility reaction Restorer. Released in 1986. **RACE** Group 50-41:Sub-Durra. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534137 donor id: IS 12566C. origin: Sudan. pedigree: SC
51/3/4-dwarf Martin B line/SC 51/2/SC 51*2/4/SC 51.
local name: Budy. other id: PI 152611 (preconverted).
other id: MN 749 (preconverted). remarks: Plants
short-statured, generally 4- or 3- dwarf height.
photoperiod insensitive. Cytoplasm 4-dwarf Martin B line.
IS 12566C. SC 51. Fertility reaction Restorer. Released
in 1986. RACE Group 34:Caud-Kaura. Breeding Material.
Seed.
- PI 534138 donor id: IS 12572C. origin: Sudan. pedigree: SC
62/3/4-dwarf Martin B line/SC 62/2/SC 62*2/4/SC 62.
local name: Matchikah. other id: PI 152730
(preconverted). other id: MN 858 (preconverted).
remarks: Plants short-statured, generally 4- or 3- dwarf
height. photoperiod insensitive. IS 12572C. SC 62.
Fertility reaction Restorer. Released in 1986. RACE
Group 39-3:Caud-Nig-Consp. Breeding Material. Seed.
- PI 534139 donor id: IS 12576C. origin: Sudan. pedigree: SC
67/3/4-dwarf Martin B line/SC 67/2/SC 67*2/4/SC 67.
local name: Tuery 11. other id: PI 152770
(preconverted). other id: MN 888 (preconverted).
remarks: Plants short-statured, generally 4- or 3- dwarf
height. photoperiod insensitive. Cytoplasm 4-dwarf Martin
B line. IS 12576C. SC 67. Fertility reaction Restorer.
Released in 1986. RACE Group 30(2):Nigr-Guin. Breeding
Material. Seed.
- PI 534140 donor id: IS 12577C. origin: Kenya. pedigree: SC
68/3/4-dwarf Martin D line/SC 68/2/SC 68*2/4/SC 68.
local name: No. 711 Ofunjo. other id: PI 153800
(preconverted). other id: MN 1223 (preconverted).
remarks: Plants short-statured, generally 4- or 3- dwarf
height. photoperiod insensitive. IS 12577C. SC 68.
Fertility reaction maintainer. Released in 1986. RACE
Group 39:Caud-Nig. Breeding Material. Seed.
- PI 534141 donor id: IS 12586C. origin: Kenya. pedigree: SC
77/3/4-dwarf Martin B line/SC 77/2/SC 77*2/4/SC 77.
local name: No. 752 Muemba. other id: PI 153856
(preconverted). other id: MN 1262 (preconverted).
remarks: Plants short-statured, generally 4- or 3- dwarf
height. photoperiod insensitive. Cytoplasm 4-dwarf Martin
B line. IS 12586C. SC 77. Fertility reaction partial
restorer. Released in 1986. RACE Group 39:Caud-Nig.
Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534142 **donor id:** IS 12589C. **origin:** Kenya. **pedigree:** SC 80/3/4-dwarf Martin B line/SC 80/2/SC 80*2/4/SC 80. **local name:** No. 756 Ngarare, Njikwa. **other id:** PI 153860 (preconverted). **other id:** MN 1266 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12589C. SC 80. Fertility reaction Restorer. Released in 1986. **RACE** Group 47:Durra-Nig. Breeding Material. Seed.
- PI 534143 **donor id:** IS 12592C. **origin:** Uganda. **pedigree:** SC 83/3/4-dwarf Martin B line/SC 83/2/SC 83*2/4/SC 83. **local name:** No. 487 Kdyabala. **other id:** PI 154759 (preconverted). **other id:** MN 1314 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. Fertility reaction maintainer. Released in 1986. **RACE** Group 47:Durra-Nig. Breeding Material. Seed.
- PI 534144 **donor id:** IS 12593C. **origin:** Uganda. **pedigree:** SC 84/3/4-dwarf Martin B line/SC 84/2/SC 84*2/4/SC 84. **local name:** Kabutuwa. **other id:** PI 154763 (preconverted). **other id:** MN 1318 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12593C. SC 84. Fertility reaction partial restorer. Released in 1986. **RACE** Group 47:Durra-Nig. Breeding Material. Seed.
- PI 534145 **donor id:** IS 12600C. **origin:** Rhodesia. **pedigree:** SC 91/3/4-dwarf Martin B line/SC 91/2/SC 91*2/4/SC 91. **local name:** No. 902 Sorghum Arundi. **other id:** PI 156143 (preconverted). **other id:** MN 1759 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12600C. SC 91. Fertility reaction maintainer. Released in 1986. **RACE** Group 57:Para. Breeding Material. Seed.
- PI 534146 **donor id:** IS 12611C. **origin:** Ethiopia. **pedigree:** SC 111/3/4-dwarf Martin B line/SC 111/2/SC 111*2/4/SC 111. **local name:** No. 6 Gambela. **other id:** PI 257600 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12611C. SC 111. Fertility reaction Restorer. Released in 1986. **RACE** Group 39(1):Zerazera. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534147 **donor id:** IS 12614C. **origin:** Ethiopia. **pedigree:** SC 123/3/4-dwarf Martin B line/SC 123/2/SC 123*2/4/SC 123. **local name:** R1, 3. **other id:** PI 276769 (preconverted). **other id:** SA 2287. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12614C. SC 123. Fertility reaction Restorer. Released in 1986. RACE Group 41-50:Durra-Sub. Breeding Material. Seed.
- PI 534148 **donor id:** IS 12626C. **origin:** Ethiopia. **pedigree:** SC 135/3/4-dwarf Martin B line/SC 135/2/SC 135*2/4/SC 135. **local name:** R1, 21. **other id:** PI 276786 (preconverted). **other id:** SA 2304. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12626C. SC 135. Fertility reaction progeny segregate. Released in 1986. RACE Group 45:Durra-Doch. Breeding Material. Seed.
- PI 534149 **donor id:** IS 12627C. **origin:** Ethiopia. **pedigree:** SC 136/3/4-dwarf Martin B line/SC 136/2/SC 136*2/4/SC 136. **local name:** R1, 22. **other id:** PI 276787 (preconverted). **other id:** SA 2305. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12627C. SC 136. Fertility reaction partial restorer. Released in 1986. RACE Group 45:Durra-Doch. Breeding Material. Seed.
- PI 534150 **donor id:** IS 12628C. **origin:** Ethiopia. **pedigree:** SC 137/3/4-dwarf Martin B line/SC 137/2/SC 137*2/4/SC 137. **local name:** R1, 23. **other id:** PI 276788 (preconverted). **other id:** SA 2306. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 12628C. SC 137. Fertility reaction partial restorer. Released in 1986. RACE Group 45:Durra-Doch. Breeding Material. Seed.
- PI 534151 **donor id:** IS 12630C. **origin:** Ethiopia. **pedigree:** SC 139/3/4-dwarf Martin B line/SC 139/2/SC 139*2/4/SC 139. **local name:** R1, 25. **other id:** PI 276790 (preconverted). **other id:** SA 2308. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12630C. SC 139. Fertility reaction Restorer. Released in 1986. RACE Group 45-50:Cur-Doc-Sub. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534152 donor id: IS 12632C. origin: Ethiopia. pedigree: SC 141/3/4-dwarf Martin B line/SC 141/2/SC 141*2/4/SC 141. local name: R1, 27. other id: PI 276792 (preconverted). other id: SA 2310. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12632C. SC 141. Fertility reaction Restorer. Released in 1986. RACE Group 45:Durra-Doch. Breeding Material. Seed.
- PI 534153 donor id: IS 12633C. origin: Ethiopia. pedigree: SC 142/3/4-dwarf Martin B line/SC 142/2/SC 142*2/4/SC 142. local name: R1, 32. other id: PI 276793 (preconverted). other id: SA 2311. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12633C. SC 142. Fertility reaction Restorer. Released in 1986. RACE Group 48:Durra-Caud. Breeding Material. Seed.
- PI 534154 donor id: IS 12637C. origin: Ethiopia. pedigree: SC 146/3/4-dwarf Martin B line/SC 146/2/SC 146*2/4/SC 146. local name: R1, J189. other id: PI 276801 (preconverted). other id: SA 2319. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12637C. SC 146. Fertility reaction Restorer. Released in 1986. RACE Group 39:Caud-Nig. Breeding Material. Seed.
- PI 534155 donor id: IS 12646C. origin: Ethiopia. pedigree: SC 155/3/4-dwarf Martin B line/SC 155/2/SC 155*2/4/SC 155. local name: R3, 80. other id: PI 276816 (preconverted). other id: SA 2334. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12646C. SC 155. Released in 1986. RACE Group 50-45:Sub-Dur-Doc. Breeding Material. Seed.
- PI 534156 donor id: IS 12649C. origin: Ethiopia. pedigree: SC 158/3/4-dwarf Martin B line/SC 158/2/SC 158*2/4/SC 158. local name: R3, 83. other id: PI 276819 (preconverted). other id: SA 2337. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12649C. SC 158. Fertility reaction partial restorer. Released in 1986. RACE Group 41:Durra. Breeding Material. Seed.
- PI 534157 donor id: IS 12661C. origin: Ethiopia. pedigree: SC 170/3/4-dwarf Martin B line/SC 170/2/SC 170*2/4/SC 170. local name: R4, B1. other id: PI 276837 (preconverted). other id: SA 2355. remarks: Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12661C. SC 170. Fertility reaction Restorer. Released in 1986. RACE Group 39(1):Zerazera. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534158 **donor id:** IS 12667C. **origin:** Ethiopia. **pedigree:** SC 176/3/4-dwarf Martin B line/SC 176/2/SC 176*2/4/SC 176. **local name:** R4, B8. **other id:** PI 276843 (preconverted). **other id:** SA 2361. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12667C. SC 176. Fertility reaction Restorer. Released in 1986. **RACE** Group 39(1):Zerazera. Breeding Material. Seed.
- PI 534159 **donor id:** IS 12672C. **origin:** Ethiopia. **pedigree:** SC 181/3/4-dwarf Martin B line/SC 181/2/SC 181*2/4/SC 181. **local name:** Collubi Dwarf. **other id:** PI 276853 (preconverted). **other id:** SA 2371. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12672C. SC 181. Fertility reaction maintainer. Released in 1986. **RACE** Group 41-50:Durra-Sub. Breeding Material. Seed.
- PI 534160 **donor id:** IS 12674C. **origin:** UNKNOWN. **pedigree:** SC 183/3/4-dwarf Martin B line/SC 183/2/SC 183*2/4/SC 183. **local name:** Magune. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12674C. SC 183. Fertility reaction partial restorer. Received through Mexico. Released in 1986. **RACE** Group 27:Caffr-Fet. Breeding Material. Seed.
- PI 534161 **donor id:** IS 12676C. **origin:** Nigeria. **pedigree:** SC 185/3/4-dwarf Martin B line/SC 185/2/SC 185*2/4/SC 185. **local name:** BO 20. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 12676C. SC 185. Fertility reaction Restorer. Released in 1986. **RACE** Group 39:Caud-Nig. Breeding Material. Seed.
- PI 534162 **donor id:** IS 12681C. **origin:** India. **pedigree:** SC 218/3/4-dwarf Martin B line/SC 218/2/SC 218*2/4/SC 218. **local name:** No. 3. **other id:** CL 1208-2. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. Cytoplasm 4-dwarf Martin B line. IS 12681C. SC 218. Fertility reaction restorer. Released in 1986. **RACE** Group 41:Durra. Breeding Material. Seed.
- PI 534163 **donor id:** IS 17459C. **origin:** United States. **pedigree:** SC 599/3/4-dwarf Martin B line/SC 599/2/SC 599*2/4/SC 599. **local name:** REXX. **other id:** PI 152957 (preconverted). **other id:** MN 1048 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. IS 17459C. SC 599. Fertility reaction Restorer. Released in 1986. **RACE** Group 36:Caud-Bic. Breeding Material. Seed.

PI 533928 to 534167-continued

- PI 534164 **donor id:** SC 969C. **origin:** Uganda. **pedigree:** SC 969/3/4-dwarf Martin B line/SC 969/2/SC 969*2/4/SC 969. **local name:** E-1. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. SC 969C. SC 969. Fertility reaction partial restorer. Released in 1986. RACE Group 47:Durra-Nig. Breeding Material. Seed.
- PI 534165 **donor id:** SC 972C. **origin:** Sudan. **pedigree:** SC 972/3/4-dwarf Martin B line/SC 972/2/SC 972*2/4/SC 972. **local name:** Kalati Consa. **other id:** PI 152857 (preconverted). **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. SC 972C. SC 972. Fertility reaction Restorer. Released in 1986. RACE Group 39(1):Zerazera. Breeding Material. Seed.
- PI 534166 **donor id:** SC 997C. **origin:** Israel. **pedigree:** SC 997/3/4-dwarf Martin B line/SC 997/2/SC 997*2/4/SC 997. **local name:** Vicia desycampa. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. SC 997C. SC 997. Fertility reaction partial restorer. Released in 1986. RACE S. arund. Breeding Material. Seed.
- PI 534167 **donor id:** SC 998C. **origin:** UNKNOWN. **pedigree:** SC 998/3/4-dwarf Martin B line/SC 998/2/SC 998*2/4/SC 998. **local name:** F.R. Miller. **remarks:** Plants short-statured, generally 4- or 3- dwarf height. photoperiod insensitive. SC 998C. SC 998. Fertility reaction Restorer. Released in 1986. RACE Group 50:Subglabrescens. Breeding Material. Seed.

PI 534168 to 534176. *Medicago arabica* (L.) Hudson FABACEAE Spotted burclover

Donated by: Seymour, P.N.D., Devonian Botanic Gardens, University of Alberta, Edmonton, Alberta, Canada. **remarks:** Received through G.R. Baughan, Germplasm Quality and Enhancement Laboratory, USDA-ARS, Beltsville, Maryland. Code numbers refer to designations by K.A. Lesins, Dept. of Plant Science, University of Alberta, Canada. Received January 1987.

- PI 534168 **donor id:** 13. **origin:** Portugal. **origin institute:** Botanical Inst. of the Univ. of Coimbra. Annual. Seed.
- PI 534169 **donor id:** 15. **origin:** Germany, Federal Rep of. **origin institute:** Botanical Garden, Bremen. Annual. Seed.
- PI 534170 **donor id:** 16. **origin:** UNKNOWN. **origin institute:** Hortus Botanicus, Twircensis. Annual. Seed.

PI 534168 to 534176-continued

- PI 534171 donor id: 17. origin: Soviet Union. origin institute: Nikita Botanical Gardens, Yalta, Crimea. Annual. Seed.
- PI 534172 donor id: 26. origin: Poland. origin institute: Botanical Garden, Warszawa. Annual. Seed.
- PI 534173 donor id: 883. origin: Turkey. collector: K.A. and I. Lesins. collector id: 883. locality: Soguksu and Telesistepe, Trabzon. Annual. Wild. Seed.
- PI 534174 donor id: 1520. origin: France. collector: K.A. and I. Lesins. collector id: 1520. locality: Mount Saint Antoenne, Cannes. Annual. Wild. Seed.
- PI 534175 donor id: 1608. origin: France. collector: K.A. and I. Lesins. collector id: 1608. locality: Near Biarritz on way from Bayonne. Annual. Wild. Seed.
- PI 534176 donor id: 1773. origin: Italy. collector: K.A. and I. Lesins. collector id: 1773. locality: Botanical Garden, Rome. Annual. Seed.

PI 534177 to 534191. *Medicago constricta* Durieu FABACEAE

Donated by: Seymour, P.N.D., Devonian Botanic Gardens, University of Alberta, Edmonton, Alberta, Canada. remarks: Received through G.R. Baughan, Germplasm Quality and Enhancement Laboratory, USDA-ARS, Beltsville, Maryland. Code numbers refer to designations by K.A. Lesins, Dept. of Plant Science, University of Alberta, Canada. Received January 1987.

- PI 534177 donor id: 224b. origin: Bulgaria. locality: Kulata. remarks: Donated by Kozuharov. Annual. Seed.
- PI 534178 donor id: 1226. origin: Greece. collected: 1963. collector: K.A. and I. Lesins. collector id: 1226. locality: Petaloides, 26km from Rhodes, above the Butterflies Bar. Annual. Wild. Seed.
- PI 534179 donor id: 1258. origin: Cyprus. collected: 1963. collector: K.A. and I. Lesins. collector id: 1258. locality: Near Kythrea. Annual. Wild. Seed.
- PI 534180 donor id: 1288a. origin: Cyprus. collected: 1965. collector: K.A. and I. Lesins. collector id: 1288a. locality: Between Nicosia and Peristerane. remarks: Greenhouse increase of 1288. Annual. Wild. Seed.

PI 534177 to 534191-continued

- PI 534181 donor id: 1288b. origin: Cyprus. collected: 1965.
collector: K.A. and I. Lesins. collector id: 1288b.
locality: Between Nicosia and Peristerane. remarks:
Greenhouse increase of 1288. Annual. Wild. Seed.
- PI 534182 donor id: 1293. origin: Cyprus. collected: 1965.
collector: K.A. and I. Lesins. collector id: 1293.
locality: Between Nicosia and Peristerane. Annual.
Wild. Seed.
- PI 534183 donor id: 1350. origin: Lebanon. collected: 1964.
collector: K.A. and I. Lesins. collector id: 1350.
locality: Fayadieh, 6km from French College, Beirut.
Annual. Wild. Seed.
- PI 534184 donor id: 1366. origin: Lebanon. collected: 1964.
collector: K.A. and I. Lesins. collector id: 1366.
locality: Maksch-Idita. Annual. Wild. Seed.
- PI 534185 donor id: 1374. origin: Lebanon. collected: 1964.
collector: K.A. and I. Lesins. collector id: 1374.
locality: Chtaura. Annual. Wild. Seed.
- PI 534186 donor id: 1447. origin: Greece. collected: 1964.
collector: K.A. and I. Lesins. collector id: 1447.
locality: Thessaloniki-Serrai. Annual. Wild. Seed.
- PI 534187 donor id: 1471. origin: Greece. collected: 1963.
collector: K.A. and I. Lesins. collector id: 1471.
locality: East of Kavala, 6km. Annual. Wild. Seed.
- PI 534188 donor id: 1482a. origin: Greece. collected: 1963.
collector: K.A. and I. Lesins. collector id: 1482a.
locality: East of Avli, 12km west of Kavala. Annual.
Wild. Seed.
- PI 534189 donor id: 1483. origin: Greece. collected: 1963.
collector: K.A. and I. Lesins. collector id: 1483.
locality: Between Xanthi and Kavala. Annual. Wild.
Seed.
- PI 534190 donor id: 1491. origin: Greece. collected: 1964.
collector: K.A. and I. Lesins. collector id: 1491.
locality: Seashore. Annual. Wild. Seed.
- PI 534191 donor id: 1496. origin: Greece. collected: 1964.
collector: K.A. and I. Lesins. collector id: 1496.
locality: Ghalipsos. Annual. Wild. Seed.

PI 534192 to 534227. *Medicago doliata* var. *muricata* Heyn FABACEAE

Donated by: Seymour, P.N.D., Devonian Botanic Gardens, University of Alberta, Edmonton, Alberta, Canada. **remarks:** Received through G.R. Bauchan, Germplasm Quality and Enhancement Laboratory, USDA-ARS, Beltsville, Maryland. Code numbers refer to designations by K.A. Lesins, Dept. of Plant Science, University of Alberta, Canada. Received January 1987.

- PI 534192 **donor id:** 1. **origin:** Czechoslovakia. **origin institute:** Slovak Academy of Sciences, Kosice. **received as:** *Medicago aculeata*. Annual. Seed.
- PI 534193 **donor id:** 2. **origin:** Germany, Federal Rep of. **origin institute:** Botanic Gardens, Marburg. **received as:** *Medicago aculeata*. Annual. Seed.
- PI 534194 **donor id:** 8. **origin:** Germany, Federal Rep of. **origin institute:** Bot. Gard. of Johannes-Gutenberg, Mainz. **received as:** *Medicago aculeata*. Annual. Seed.
- PI 534195 **donor id:** 9. **origin:** Morocco. **origin institute:** Scientific Institute, Cherif, Rabat. **received as:** *Medicago aculeata*. Annual. Seed.
- PI 534196 **donor id:** 713. **origin:** Italy. **collected:** 1962. **collector:** K.A. and I. Lesins. **collector id:** 713. **locality:** Itri, 126km south of Rome. **received as:** *Medicago aculeata*. Annual. Wild. Seed.
- PI 534197 **donor id:** 780. **origin:** Italy. **collected:** 1962. **collector:** K.A. and I. Lesins. **collector id:** 780. **locality:** Collesano. **received as:** *Medicago aculeata*. Annual. Wild. Seed.
- PI 534198 **donor id:** 781. **origin:** Italy. **collected:** 1962. **collector:** K.A. and I. Lesins. **collector id:** 781. **locality:** Collesano. **received as:** *Medicago aculeata*. Annual. Wild. Seed.
- PI 534199 **donor id:** 801. **origin:** Italy. **collected:** 1962. **collector:** K.A. and I. Lesins. **collector id:** 801. **locality:** Sicily, Piana degli Albanesi. **received as:** *Medicago aculeata*. Annual. Wild. Seed.
- PI 534200 **donor id:** 802. **origin:** Italy. **collected:** 1962. **collector:** K.A. and I. Lesins. **collector id:** 802. **locality:** Sicily, Piana degli Albanesi. **received as:** *Medicago aculeata*. Annual. Wild. Seed.
- PI 534201 **donor id:** 1101. **origin:** Italy. **origin institute:** Botanic Gardens, Sardinia. **collected:** 1963. **collector:** K.A. and I. Lesins. **collector id:** 1101. **received as:** *Medicago aculeata*. Annual. Wild. Seed.

PI 534192 to 534227-continued

- PI 534202 donor id: 1367. origin: Lebanon. collected: 1963.
collector: K.A. and I. Lesins. collector id: 1367.
locality: Maksch-Idita. received as: Medicago aculeata.
Annual. Wild. Seed.
- PI 534203 donor id: 1385. origin: Lebanon. collected: 1963.
collector: K.A. and I. Lesins. collector id: 1385.
locality: Before U.S.A. University farm. received as:
Medicago aculeata. Annual. Wild. Seed.
- PI 534204 donor id: 1585. origin: Spain. collected: 1963.
collector: K.A. and I. Lesins. collector id: 1585.
locality: Chiclana, Cadiz. received as: Medicago
aculeata. Annual. Wild. Seed.
- PI 534205 donor id: 1585a. origin: Spain. locality: Chiclana,
Cadiz. remarks: Greenhouse increase of 1585. received
as: Medicago aculeata. Annual. Wild. Seed.
- PI 534206 donor id: 1874. origin: Germany. received as: Medicago
aculeata. Annual. Wild. Seed.
- PI 534207 donor id: 1987b. origin: UNKNOWN. received as: Medicago
aculeata. Annual. Wild. Seed.
- PI 534208 donor id: 2472. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2472. locality:
Bel-Abbes, 10-15km from Saida on road to Sidi. received
as: Medicago aculeata. Annual. Wild. Seed.
- PI 534209 donor id: 2480. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2480. locality:
Zoubiria (Brozza) between Berrouaghia and Boghari.
received as: Medicago aculeata. Annual. Wild. Seed.
- PI 534210 donor id: 2491. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2491. locality:
Road to Saida, 10km. received as: Medicago aculeata.
Annual. Wild. Seed.
- PI 534211 donor id: 2567. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2567. locality:
Boucheougouf. received as: Medicago aculeata. Annual.
Wild. Seed.
- PI 534212 donor id: 2656. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2656. locality:
Road from Meknes, 11km to Khemisset. received as:
Medicago aculeata. Annual. Wild. Seed.

PI 534192 to 534227-continued

- PI 534213 donor id: 2662. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2662. locality:
Road from Meknes, 36km to Khemisset. received as:
Medicago aculeata. Annual. Wild. Seed.
- PI 534214 donor id: 2665. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2665. locality:
Road from Fes, 30km to Meknes. received as: Medicago
aculeata. Annual. Wild. Seed.
- PI 534215 donor id: 2667a. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2667a. locality:
Road from Fes, 2km to Ras el Ma. remarks: Greenhouse
increase of 2667. received as: Medicago aculeata.
Annual. Wild. Seed.
- PI 534216 donor id: 2667b. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2667b. locality:
Road from Fes, 2km to Ras el Ma. remarks: Greenhouse
increase of 2667. received as: Medicago aculeata.
Annual. Wild. Seed.
- PI 534217 donor id: 2716. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2716. locality:
Road from S. Smail, 19km to Bennour. received as:
Medicago aculeata. Annual. Wild. Seed.
- PI 534218 donor id: 2719. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2719. locality:
Red soil under lime rock deposit, 38km to Smail on the
road from El-Jadida. received as: Medicago aculeata.
Annual. Wild. Seed.
- PI 534219 donor id: 2736. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2736. locality:
Boulojoul, on the road from Midelt. received as:
Medicago aculeata. Annual. Wild. Seed.
- PI 534220 donor id: 2742. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2742. locality:
El Kelaa-des-Mgowna, road from Ouarzazate to Boumalne
(18km). received as: Medicago aculeata. Annual. Wild.
Seed.
- PI 534221 donor id: 2745. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2745. locality:
Road to Aim el Leuh (12km). received as: Medicago
aculeata. Annual. Wild. Seed.

PI 534192 to 534227-continued

- PI 534222 donor id: 2747. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2747. locality:
Khatouar. received as: *Medicago aculeata*. Annual.
Wild. Seed.
- PI 534223 donor id: 2772. origin: Morocco. collected: 1974.
collector: K.A. Lesins. collector id: 2772. locality:
Road from Settat, 16km to Kasaba-de-Boulaouane. received
as: *Medicago aculeata*. Annual. Wild. Seed.
- PI 534224 donor id: 2808. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2808. locality:
Past Terni, 3km. received as: *Medicago aculeata*.
Annual. Wild. Seed.
- PI 534225 donor id: 2809. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2809. locality:
Past Terni, 3km. received as: *Medicago aculeata*.
Annual. Wild. Seed.
- PI 534226 donor id: 2810. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2810. received
as: *Medicago aculeata*. Annual. Wild. Seed.
- PI 534227 donor id: 2811. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2811. locality:
Past Terni, 3km. received as: *Medicago aculeata*.
Annual. Wild. Seed.

PI 534228. *Medicago laciniata* (L.) Miller FABACEAE

Donated by: Seymour, P.N.D., Devonian Botanic Gardens, University of
Alberta, Edmonton, Alberta, Canada. remarks: Received through G.R.
Bauchan, Germplasm Quality and Enhancement Laboratory, USDA-ARS,
Beltsville, Maryland. Code numbers refer to designations by K.A.
Lesins, Dept. of Plant Science, University of Alberta, Canada.
Received January 1987.

donor id: 20b. origin: UNKNOWN. received as: *Medicago*
aschersoniana. Annual. Seed.

PI 534229. *Medicago minima* (L.) Bartal. FABACEAE

Donated by: Seymour, P.N.D., Devonian Botanic Gardens, University of
Alberta, Edmonton, Alberta, Canada. remarks: Received through G.R.
Bauchan, Germplasm Quality and Enhancement Laboratory, USDA-ARS,
Beltsville, Maryland. Code numbers refer to designations by K.A.
Lesins, Dept. of Plant Science, University of Alberta, Canada.
Received January 1987.

PI 534229-continued

donor id: 2633a. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2633a. locality:
Valley of Oued Chiffa. Annual. Wild. Seed.

PI 534230 to 534233. *Medicago murex* Willd. FABACEAE

Donated by: Seymour, P.N.D., Devonian Botanic Gardens, University of Alberta, Edmonton, Alberta, Canada. remarks: Received through G.R. Bauchan, Germplasm Quality and Enhancement Laboratory, USDA-ARS, Beltsville, Maryland. Code numbers refer to designations by K.A. Lesins, Dept. of Plant Science, University of Alberta, Canada. Received January 1987.

PI 534230 donor id: 1131. origin: Greece. collected: 1963.
collector: K.A. and I. Lesins. collector id: 1131.
locality: South of Iraklion, 34km, Crete. Annual. Wild.
Seed.

PI 534231 donor id: 1979. origin: Canada. origin institute:
Experimental Farm, Brandon, Manitoba. Annual. Seed.

PI 534232 donor id: 1980. origin: Australia. origin institute:
Univ. of Western Australia, Nedlands. remarks: Dr. P.
Simon collection. Annual. Seed.

PI 534233 donor id: 1982. origin: Israel. origin institute: Univ.
of Western Australia, Nedlands, Australia. remarks:
Collected by C.C. Heyn, Israel. Annual. Seed.

PI 534234. *Medicago praecox* DC. FABACEAE

Donated by: Seymour, P.N.D., Devonian Botanic Gardens, University of Alberta, Edmonton, Alberta, Canada. remarks: Received through G.R. Bauchan, Germplasm Quality and Enhancement Laboratory, USDA-ARS, Beltsville, Maryland. Code numbers refer to designations by K.A. Lesins, Dept. of Plant Science, University of Alberta, Canada. Received January 1987.

donor id: 1778. origin: France. collected: 1964.
collector: K.A. and I. Lesins. collector id: 1778.
locality: Biguglia, Corsica. Annual. Wild. Seed.

PI 534235 to 534271. *Medicago rigidula* (L.) All. FABACEAE Tifton
burclover

Donated by: Seymour, P.N.D., Devonian Botanic Gardens, University of Alberta, Edmonton, Alberta, Canada. **remarks:** Received through G.R. Bauchan, Germplasm Quality and Enhancement Laboratory, USDA-ARS, Beltsville, Maryland. Code numbers refer to designations by K.A. Lesins, Dept. of Plant Science, University of Alberta, Canada. Received January 1987.

- PI 534235 donor id: 489a. origin: Iraq. collected: 1957.
collector: K.H. Rechinger. locality: Ahmaquin (Persian
frontier). remarks: Greenhouse increase of 489. Annual.
Wild. Seed.
- PI 534236 donor id: 589. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 589.
locality: Terasli saha Tupla fabrikasi. Annual. Wild.
Seed.
- PI 534237 donor id: 597. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 597.
locality: South, 10km of Kizilcahamam. Annual. Wild.
Seed.
- PI 534238 donor id: 604. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 604.
locality: North of Ankara, 8km, to Kizilcahamam. Annual.
Wild. Seed.
- PI 534239 donor id: 606. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 606.
locality: North of Ankara, 11km. Annual. Wild. Seed.
- PI 534240 donor id: 607. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 607.
locality: At Elrick (Sarkaya-Beyman-Ankara-Bala Road).
Annual. Wild. Seed.
- PI 534241 donor id: 608. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 608.
locality: At Elrick (Sarkaya-Beyman-Ankara-Bala Road).
Annual. Wild. Seed.
- PI 534242 donor id: 609. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 609.
locality: At Elrick (Sarkaya-Beyman-Ankara-Bala Road).
Annual. Wild. Seed.
- PI 534243 donor id: 629. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 629.
locality: Hasanbeyli village (Osmany-Adana). Annual.
Wild. Seed.

PI 534235 to 534271-continued

- PI 534244 donor id: 632a. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 632a.
locality: Burc, around Gaziantep. remarks: Greenhouse
increase of 632. Annual. Wild. Seed.
- PI 534245 donor id: 681. origin: Turkey. collected: 1962.
Annual. Seed.
- PI 534246 donor id: 710. origin: Italy. collected: 1962.
collector: K.A. and I. Lesins. collector id: 710.
locality: Itri, 126km south of Rome. Annual. Wild.
Seed.
- PI 534247 donor id: 813. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 813.
locality: Dobapdere, Ankara. Annual. Wild. Seed.
- PI 534248 donor id: 821. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 821.
locality: Cavundur ciftligi, 7km west of Ankara. Annual.
Wild. Seed.
- PI 534249 donor id: 822. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 822.
locality: Cavundur ciftligi, 7km west of Ankara. Annual.
Wild. Seed.
- PI 534250 donor id: 823. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 823.
locality: Cavundur ciftligi, 7km west of Ankara. Annual.
Wild. Seed.
- PI 534251 donor id: 827. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 827.
locality: Cavundur ciftligi, 7km west of Ankara. Annual.
Wild. Seed.
- PI 534252 donor id: 828. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 828.
locality: Cavundur ciftligi, 7km west of Ankara. Annual.
Wild. Seed.
- PI 534253 donor id: 831. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 831.
locality: Cavundur ciftligi, 7km west of Ankara. Annual.
Wild. Seed.
- PI 534254 donor id: 848. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 848.
locality: Haymana-Ankara. Annual. Wild. Seed.

PI 534235 to 534271-continued

- PI 534255 donor id: 849. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 849.
locality: Haymana-Ankara. Annual. Wild. Seed.
- PI 534256 donor id: 859. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 859.
locality: Mersin I. trip. Annual. Wild. Seed.
- PI 534257 donor id: 864. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 864.
locality: Mersin I. trip. Annual. Wild. Seed.
- PI 534258 donor id: 898. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 898.
locality: Burc-Gaziantep. Annual. Wild. Seed.
- PI 534259 donor id: 906. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 906.
locality: Beyman. Annual. Wild. Seed.
- PI 534260 donor id: 913. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 913.
locality: Mersin. Annual. Wild. Seed.
- PI 534261 donor id: 919. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 919.
locality: Adana-Gaziantep. Annual. Wild. Seed.
- PI 534262 donor id: 967. origin: Greece. collected: 1962.
collector: K.A. and I. Lesins. collector id: 967.
locality: Kosani airport. Annual. Wild. Seed.
- PI 534263 donor id: 1008. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 1008.
locality: Adana-Gaziantep. Annual. Wild. Seed.
- PI 534264 donor id: 1432. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 1432.
locality: Near Ankara. Annual. Wild. Seed.
- PI 534265 donor id: 1441. origin: Greece. collected: 1963.
collector: K.A. and I. Lesins. collector id: 1441.
locality: Near Thessaloniki. Annual. Wild. Seed.
- PI 534266 donor id: 1742. origin: Turkey. collected: 1962.
collector: D.R. Cornelius. locality: Alman Pinari,
Ceyhan, 27km Adana. Annual. Wild. Seed.
- PI 534267 donor id: 1744. origin: Turkey. collected: 1962.
collector: D.R. Cornelius. locality: Bedik Koyu,
Gaziantep Province. Annual. Wild. Seed.

PI 534235 to 534271-continued

- PI 534268 donor id: 1756. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 1756.
locality: Karamanalo collection. Annual. Wild. Seed.
- PI 534269 donor id: 1767. origin: Turkey. collected: 1962.
collector: K.A. and I. Lesins. collector id: 1767.
locality: Mersin playa. Annual. Wild. Seed.
- PI 534270 donor id: 1938. origin: Canada. origin institute:
Experimental Farm, Brandon, Manitoba. remarks:
Originally from Soviet Union. Annual. Seed.
- PI 534271 donor id: 2481. origin: Algeria. collected: 1974.
collector: K.A. Lesins. collector id: 2481. locality:
Zoubiria (Brozza), between Berrouaghia and Boghari.
Annual. Wild. Seed.

PI 534272 to 534502. *Triticum aestivum* L. POACEAE Common wheat

Donated by: Istituto del Germoplasma, Consiglio Nazionale delle
Ricerche, 70126 Bari, Italy. **remarks:** Received through IBPGR, Rome,
Italy. Received 1988.

- PI 534272 donor id: MG 07708. origin: Ethiopia. collected:
December 8, 1973. other id: NSL 97806. latitude: 9 deg.
10 min. N. longitude: 38 deg. 50 min. E. elevation:
2430m. Cultivated. Seed.
- PI 534273 donor id: MG 07709. origin: Ethiopia. collected:
December 8, 1973. other id: NSL 97807. latitude: 9 deg.
7 min. N. longitude: 38 deg. 49 min. E. elevation:
2480m. Cultivated. Seed.
- PI 534274 donor id: MG 07710. origin: Ethiopia. collected:
December 8, 1973. other id: NSL 97808. latitude: 9 deg.
10 min. N. longitude: 38 deg. 49 min. E. elevation:
2560m. Cultivated. Seed.
- PI 534275 donor id: MG 07712. origin: Ethiopia. collected:
December 8, 1973. other id: NSL 97809. latitude: 9 deg.
10 min. N. longitude: 38 deg. 49 min. E. Cultivated.
Seed.
- PI 534276 donor id: MG 07715. origin: Ethiopia. local name:
Sindi. collected: April 19, 1974. other id: NSL 97810.
latitude: 7 deg. 38 min. N. longitude: 39 deg. 17 min.
E. elevation: 2520m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534277 donor id: MG 07716. origin: Ethiopia. collected: January 19, 1974. other id: NSL 97811. latitude: 7 deg. 35 min. N. longitude: 39 deg. 19 min. E. elevation: 2580m. Cultivated. Seed.
- PI 534278 donor id: MG 07719. origin: Ethiopia. collected: January 19, 1974. other id: NSL 97812. latitude: 7 deg. 37 min. N. longitude: 39 deg. 32 min. E. elevation: 3200m. Cultivated. Seed.
- PI 534279 donor id: MG 07720. origin: Ethiopia. local name: Sindi. collected: January 20, 1974. other id: NSL 97813. latitude: 7 deg. 39 min. N. longitude: 39 deg. 34 min. E. elevation: 2720m. Cultivated. Seed.
- PI 534280 donor id: MG 07724. origin: Ethiopia. collected: January 20, 1974. other id: NSL 97814. latitude: 7 deg. 52 min. N. longitude: 39 deg. 40 min. E. elevation: 2450m. Cultivated. Seed.
- PI 534281 donor id: MG 07726. origin: Ethiopia. collected: January 21, 1974. other id: NSL 97815. latitude: 7 deg. 54 min. N. longitude: 39 deg. 42 min. E. elevation: 2600m. Cultivated. Seed.
- PI 534282 donor id: MG 07727. origin: Ethiopia. collected: January 21, 1974. other id: NSL 97816. latitude: 7 deg. 53 min. N. longitude: 39 deg. 47 min. E. elevation: 2610m. Cultivated. Seed.
- PI 534283 donor id: MG 07728. origin: Ethiopia. local name: Bale. collected: January 21, 1974. other id: NSL 97817. latitude: 7 deg. 53 min. N. longitude: 39 deg. 49 min. E. elevation: 2610m. Cultivated. Seed.
- PI 534284 donor id: MG 07729. origin: Ethiopia. local name: Tucursindi. collected: January 21, 1974. other id: NSL 97818. latitude: 7 deg. 53 min. N. longitude: 39 deg. 54 min. E. elevation: 2620m. Cultivated. Seed.
- PI 534285 donor id: MG 07730. origin: Ethiopia. local name: Bale. collected: January 21, 1974. other id: NSL 97819. latitude: 7 deg. 53 min. N. longitude: 39 deg. 58 min. E. elevation: 2620m. Cultivated. Seed.
- PI 534286 donor id: MG 07731. origin: Ethiopia. local name: Aggia. collected: January 21, 1974. other id: NSL 97820. latitude: 7 deg. 52 min. N. longitude: 40 deg. 02 min. E. elevation: 2620m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534287 donor id: MG 07734. origin: Ethiopia. collected: January 21, 1974. other id: NSL 97821. latitude: 7 deg. 53 min. N. longitude: 40 deg. 11 min. E. elevation: 2620m. Cultivated. Seed.
- PI 534288 donor id: MG 07737. origin: Ethiopia. local name: Arabe. collected: January 22, 1974. other id: NSL 97822. latitude: 7 deg. 54 min. N. longitude: 39 deg. 55 min. E. elevation: 2740m. Cultivated. Seed.
- PI 534289 donor id: MG 07738. origin: Ethiopia. collected: January 22, 1974. other id: NSL 97823. latitude: 7 deg. 57 min. N. longitude: 39 deg. 58 min. E. elevation: 2740m. Cultivated. Seed.
- PI 534290 donor id: MG 07739. origin: Ethiopia. collected: January 22, 1974. other id: NSL 97824. latitude: 7 deg. 58 min. N. longitude: 39 deg. 56 min. E. elevation: 2740m. Cultivated. Seed.
- PI 534291 donor id: MG 07741. origin: Ethiopia. collected: January 23, 1974. other id: NSL 97825. latitude: 7 deg. 58 min. N. longitude: 39 deg. 37 min. E. elevation: 2720m. Cultivated. Seed.
- PI 534292 donor id: MG 07744. origin: Ethiopia. collected: January 26, 1974. other id: NSL 97826. latitude: 9 deg. 39 min. N. longitude: 39 deg. 27 min. E. elevation: 2820m. Cultivated. Seed.
- PI 534293 donor id: MG 07746. origin: Ethiopia. collected: January 27, 1974. other id: NSL 97827. latitude: 9 deg. 42 min. N. longitude: 39 deg. 25 min. E. elevation: 3100m. Cultivated. Seed.
- PI 534294 donor id: MG 07751. origin: Ethiopia. collected: January 27, 1974. other id: NSL 97828. latitude: 10 deg. 08 min. N. longitude: 39 deg. 33 min. E. elevation: 3250m. Cultivated. Seed.
- PI 534295 donor id: MG 07755. origin: Ethiopia. collected: January 28, 1974. other id: NSL 97829. latitude: 9 deg. 08 min. N. longitude: 39 deg. 04 min. E. elevation: 2690m. Cultivated. Seed.
- PI 534296 donor id: MG 07756. origin: Ethiopia. collected: January 28, 1974. other id: NSL 97830. latitude: 9 deg. 12 min. N. longitude: 39 deg. 07 min. E. elevation: 2720m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534297 donor id: MG 07759. origin: Ethiopia. collected: January 29, 1974. other id: NSL 97831. latitude: 9 deg. 27 min. N. longitude: 38 deg. 42 min. E. elevation: 2800m. Cultivated. Seed.
- PI 534298 donor id: MG 07760. origin: Ethiopia. collected: January 29, 1974. other id: NSL 97832. latitude: 9 deg. 43 min. N. longitude: 38 deg. 55 min. E. elevation: 2800m. Cultivated. Seed.
- PI 534299 donor id: MG 07761. origin: Ethiopia. collected: January 29, 1974. other id: NSL 97833. latitude: 9 deg. 42 min. N. longitude: 38 deg. 57 min. E. elevation: 2840m. Cultivated. Seed.
- PI 534300 donor id: MG 07762. origin: Ethiopia. collected: January 29, 1974. other id: NSL 97834. latitude: 9 deg. 42 min. N. longitude: 39 deg. 00 min. E. elevation: 2880m. Cultivated. Seed.
- PI 534301 donor id: MG 07764. origin: Ethiopia. collected: January 29, 1974. other id: NSL 97835. latitude: 9 deg. 45 min. N. longitude: 39 deg. 06 min. E. elevation: 2900m. Cultivated. Seed.
- PI 534302 donor id: MG 07766. origin: Ethiopia. collected: January 29, 1974. other id: NSL 97836. latitude: 9 deg. 52 min. N. longitude: 39 deg. 07 min. E. elevation: 2900m. Cultivated. Seed.
- PI 534303 donor id: MG 07768. origin: Ethiopia. collected: January 29, 1974. other id: NSL 97837. latitude: 9 deg. 54 min. N. longitude: 39 deg. 06 min. E. elevation: 2900m. Cultivated. Seed.
- PI 534304 donor id: MG 07769. origin: Ethiopia. collected: January 30, 1974. other id: NSL 97838. latitude: 9 deg. 24 min. N. longitude: 38 deg. 47 min. E. elevation: 2780m. Cultivated. Seed.
- PI 534305 donor id: MG 07770. origin: Ethiopia. collected: January 30, 1974. other id: NSL 97839. latitude: 9 deg. 34 min. N. longitude: 38 deg. 52 min. E. elevation: 2800m. Cultivated. Seed.
- PI 534306 donor id: MG 07771. origin: Ethiopia. collected: January 30, 1974. other id: NSL 97840. latitude: 9 deg. 42 min. N. longitude: 38 deg. 50 min. E. elevation: 2800m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534307 donor id: MG 07772. origin: Ethiopia. collected: January 30, 1974. other id: NSL 97841. latitude: 9 deg. 44 min. N. longitude: 38 deg. 46 min. E. elevation: 2800m. Cultivated. Seed.
- PI 534308 donor id: MG 07780. origin: Ethiopia. collected: January 2, 1974. other id: NSL 97842. latitude: 9 deg. 56 min. N. longitude: 38 deg. 48 min. E. elevation: 2100m. Cultivated. Seed.
- PI 534309 donor id: MG 07781. origin: Ethiopia. collected: January 2, 1974. other id: NSL 97843. latitude: 9 deg. 56 min. N. longitude: 38 deg. 47 min. E. elevation: 2200m. Cultivated. Seed.
- PI 534310 donor id: MG 07782. origin: Ethiopia. collected: January 2, 1974. other id: NSL 97844. latitude: 9 deg. 56 min. N. longitude: 38 deg. 47 min. E. elevation: 2200m. Cultivated. Seed.
- PI 534311 donor id: MG 07793. origin: Ethiopia. collected: January 6, 1974. other id: NSL 97845. elevation: 2120m. Cultivated. Seed.
- PI 534312 donor id: MG 07794. origin: Ethiopia. collected: January 6, 1974. other id: NSL 97846. elevation: 2360m. Cultivated. Seed.
- PI 534313 donor id: MG 07795. origin: Ethiopia. collected: January 6, 1974. other id: NSL 97847. elevation: 2460m. Cultivated. Seed.
- PI 534314 donor id: MG 07798. origin: Ethiopia. local name: Sindi. collected: November 30, 1973. other id: NSL 97848. latitude: 13 deg. 35 min. N. longitude: 39 deg. 30 min. E. elevation: 1900m. Cultivated. Seed.
- PI 534315 donor id: MG 07800. origin: Ethiopia. local name: Sindi. collected: November 30, 1973. other id: NSL 97849. latitude: 13 deg. 35 min. N. longitude: 39 deg. 33 min. E. elevation: 2300m. Cultivated. Seed.
- PI 534316 donor id: MG 07801. origin: Ethiopia. local name: Sindi. collected: November 30, 1973. other id: NSL 97850. latitude: 13 deg. 38 min. N. longitude: 39 deg. 35 min. E. elevation: 2260m. Cultivated. Seed.
- PI 534317 donor id: MG 07802. origin: Ethiopia. local name: Aggia Sindi. collected: November 30, 1973. other id: NSL 97851. latitude: 13 deg. 41 min. N. longitude: 39 deg. 34 min. E. elevation: 2070m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534318 donor id: MG 07803. origin: Ethiopia. local name: Aggia Sindi. collected: November 30, 1973. other id: NSL 97852. latitude: 13 deg. 47 min. N. longitude: 39 deg. 35 min. E. elevation: 1940m. Cultivated. Seed.
- PI 534319 donor id: MG 07806. origin: Ethiopia. local name: Sindi. collected: November 30, 1973. other id: NSL 97853. latitude: 14 deg. 06 min. N. longitude: 39 deg. 33 min. E. elevation: 2040m. Cultivated. Seed.
- PI 534320 donor id: MG 07811. origin: Ethiopia. local name: Sindi. collected: December 1, 1973. other id: NSL 97854. latitude: 14 deg. 22 min. N. longitude: 39 deg. 19 min. E. elevation: 2300m. Cultivated. Seed.
- PI 534321 donor id: MG 07814. origin: Ethiopia. local name: Sindi. collected: December 1, 1973. other id: NSL 97855. latitude: 14 deg. 17 min. N. longitude: 39 deg. 02 min. E. elevation: 1970m. Cultivated. Seed.
- PI 534322 donor id: MG 07815. origin: Ethiopia. collected: December 1, 1973. other id: NSL 97856. latitude: 14 deg. 18 min. N. longitude: 38 deg. 58 min. E. elevation: 2200m. Cultivated. Seed.
- PI 534323 donor id: MG 07816. origin: Ethiopia. local name: Sindi. collected: December 1, 1973. other id: NSL 97857. latitude: 14 deg. 15 min. N. longitude: 38 deg. 57 min. E. elevation: 2000m. Cultivated. Seed.
- PI 534324 donor id: MG 07818. origin: Ethiopia. local name: Sindi. collected: December 2, 1973. other id: NSL 97858. latitude: 14 deg. 00 min. N. longitude: 38 deg. 58 min. E. elevation: 1800m. Cultivated. Seed.
- PI 534325 donor id: MG 07820. origin: Ethiopia. local name: Sindi. collected: December 2, 1973. other id: NSL 97859. latitude: 13 deg. 47 min. N. longitude: 39 deg. 07 min. E. elevation: 2500m. Cultivated. Seed.
- PI 534326 donor id: MG 07823. origin: Ethiopia. local name: Sindi. collected: December 2, 1973. other id: NSL 97860. latitude: 13 deg. 42 min. N. longitude: 39 deg. 19 min. E. elevation: 2350m. Cultivated. Seed.
- PI 534327 donor id: MG 07824. origin: Ethiopia. local name: Sindi. collected: December 2, 1973. other id: NSL 97861. latitude: 13 deg. 40 min. N. longitude: 39 deg. 20 min. E. elevation: 2360m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534328 donor id: MG 07826. origin: Ethiopia. local name: Sindi. collected: December 2, 1973. other id: NSL 97862. latitude: 13 deg. 35 min. N. longitude: 39 deg. 27 min. E. elevation: 2110m. Cultivated. Seed.
- PI 534329 donor id: MG 07827. origin: Ethiopia. local name: Sindi. collected: December 3, 1973. other id: NSL 97863. latitude: 13 deg. 29 min. N. longitude: 39 deg. 32 min. E. elevation: 2180m. Cultivated. Seed.
- PI 534330 donor id: MG 07828. origin: Ethiopia. local name: Sindi. collected: December 3, 1973. other id: NSL 97864. latitude: 13 deg. 28 min. N. longitude: 39 deg. 32 min. E. elevation: 2250m. Cultivated. Seed.
- PI 534331 donor id: MG 07831. origin: Ethiopia. local name: Sindi. collected: December 3, 1973. other id: NSL 97865. latitude: 13 deg. 17 min. N. longitude: 39 deg. 31 min. E. elevation: 2100m. Cultivated. Seed.
- PI 534332 donor id: MG 07838. origin: Ethiopia. local name: Sindi. collected: December 3, 1973. other id: NSL 97866. latitude: 12 deg. 50 min. N. longitude: 39 deg. 33 min. E. elevation: 2650m. Cultivated. Seed.
- PI 534333 donor id: MG 07840. origin: Ethiopia. local name: Aggia. collected: December 3, 1973. other id: NSL 97867. latitude: 12 deg. 43 min. N. longitude: 39 deg. 32 min. E. elevation: 2400m. Cultivated. Seed.
- PI 534334 donor id: MG 07845. origin: Ethiopia. local name: Sindi. collected: December 4, 1973. other id: NSL 97868. latitude: 10 deg. 42 min. N. longitude: 39 deg. 34 min. E. elevation: 1650m. Cultivated. Seed.
- PI 534335 donor id: MG 18123. origin: Tunisia. local name: Chili. collected: June 26, 1976. other id: NSL 117500. elevation: 550m. Cultivated. Seed.
- PI 534336 donor id: MG 18124. origin: Tunisia. local name: Chili. collected: June 26, 1976. other id: NSL 117501. elevation: 550m. Cultivated. Seed.
- PI 534337 donor id: MG 18125. origin: Tunisia. collected: June 26, 1976. other id: NSL 117502. other id: D5825INRAT. elevation: 540m. Cultivated. Seed.
- PI 534338 donor id: MG 18126. origin: Tunisia. local name: Biskri. collected: June 26, 1976. other id: NSL 117503. elevation: 520m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534339 donor id: MG 18127. origin: Tunisia. local name: Biskri. collected: June 26, 1976. other id: NSL 117504. elevation: 420m. Cultivated. Seed.
- PI 534340 donor id: MG 18128. origin: Tunisia. local name: Biskri. collected: June 27, 1976. other id: NSL 117505. elevation: 470m. Cultivated. Seed.
- PI 534341 donor id: MG 18129. origin: Tunisia. collected: June 27, 1976. other id: NSL 117506. elevation: 520m. Cultivated. Seed.
- PI 534342 donor id: MG 18130. origin: Tunisia. local name: Chili. collected: June 27, 1976. other id: NSL 117507. elevation: 450m. Cultivated. Seed.
- PI 534343 donor id: MG 18131. origin: Tunisia. local name: Mahmoudi. collected: June 27, 1976. other id: NSL 117508. elevation: 450m. Cultivated. Seed.
- PI 534344 donor id: MG 18132. origin: Tunisia. local name: Bidri. collected: June 27, 1976. other id: NSL 117509. elevation: 450m. Cultivated. Seed.
- PI 534345 donor id: MG 18133. origin: Tunisia. local name: Floryhur. collected: June 27, 1976. other id: NSL 117510. Cultivated. Seed.
- PI 534346 donor id: MG 18134. origin: Tunisia. local name: Chili. collected: June 27, 1976. other id: NSL 117511. elevation: 480m. Cultivated. Seed.
- PI 534347 donor id: MG 18135. origin: Tunisia. local name: Chili. collected: June 27, 1976. other id: NSL 117512. elevation: 480m. Cultivated. Seed.
- PI 534348 donor id: MG 18136. origin: Tunisia. local name: Chili. collected: June 27, 1976. other id: NSL 117513. elevation: 480m. Cultivated. Seed.
- PI 534349 donor id: MG 18137. origin: Tunisia. local name: Chili. collected: June 27, 1976. other id: NSL 117514. elevation: 485m. Cultivated. Seed.
- PI 534350 donor id: MG 18138. origin: Tunisia. local name: Chili. collected: June 28, 1976. other id: NSL 117515. elevation: 450m. Cultivated. Seed.
- PI 534351 donor id: MG 18139. origin: Tunisia. local name: Chili. collected: June 28, 1976. other id: NSL 117516. elevation: 495m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534352 donor id: MG 18140. origin: Tunisia. collected: June 28, 1976. other id: NSL 117517. elevation: 505m. Cultivated. Seed.
- PI 534353 donor id: MG 18141. origin: Tunisia. collected: June 28, 1976. other id: NSL 117518. elevation: 920m. Cultivated. Seed.
- PI 534354 donor id: MG 18142. origin: Tunisia. collected: June 28, 1976. other id: NSL 117519. elevation: 940m. Cultivated. Seed.
- PI 534355 donor id: MG 18143. origin: Tunisia. collected: June 28, 1976. other id: NSL 117520. elevation: 1030m. Cultivated. Seed.
- PI 534356 donor id: MG 18144. origin: Tunisia. collected: June 28, 1976. other id: NSL 117521. elevation: 1020m. Cultivated. Seed.
- PI 534357 donor id: MG 18145. origin: Tunisia. collected: June 28, 1976. other id: NSL 117522. elevation: 980m. Cultivated. Seed.
- PI 534358 donor id: MG 18146. origin: Tunisia. collected: June 28, 1976. other id: NSL 117523. latitude: 48 deg. 05 min. N. elevation: 1040m. Wild. Seed.
- PI 534359 donor id: MG 18147. origin: Tunisia. local name: Chili collected: June 28, 1976. other id: NSL 117524. elevation: 1050m. Cultivated. Seed.
- PI 534360 donor id: MG 18148. origin: Tunisia. collected: June 29, 1976. other id: NSL 117525. elevation: 820m. Cultivated. Seed.
- PI 534361 donor id: MG 18149. origin: Tunisia. collected: June 29, 1976. other id: NSL 117526. elevation: 820m. Cultivated. Seed.
- PI 534362 donor id: MG 18150. origin: Tunisia. collected: June 29, 1976. other id: NSL 117527. elevation: 860m. Cultivated. Seed.
- PI 534363 donor id: MG 18151. origin: Tunisia. collected: June 29, 1976. other id: NSL 117528. elevation: 900m. Cultivated. Seed.
- PI 534364 donor id: MG 18152. origin: Tunisia. collected: June 29, 1976. other id: NSL 117529. elevation: 920m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534365 donor id: MG 18153. origin: Tunisia. collected: June 29, 1976. other id: NSL 117530. elevation: 890m. Cultivated. Seed.
- PI 534366 donor id: MG 18154. origin: Tunisia. other id: NSL 117531. Cultivated. Seed.
- PI 534367 donor id: MG 18155. origin: Tunisia. collected: June 29, 1976. other id: NSL 117532. elevation: 1040m. Cultivated. Seed.
- PI 534368 donor id: MG 18156. origin: Tunisia. local name: Mamhoudi. collected: June 29, 1976. other id: NSL 117533. elevation: 1040m. Cultivated. Seed.
- PI 534369 donor id: MG 18157. origin: Tunisia. collected: June 29, 1976. other id: NSL 117534. elevation: 1040m. Cultivated. Seed.
- PI 534370 donor id: MG 18158. origin: Tunisia. local name: Mamhoudi. collected: June 29, 1976. other id: NSL 117535. elevation: 1030m. Cultivated. Seed.
- PI 534371 donor id: MG 18159. origin: Tunisia. collected: June 29, 1976. other id: NSL 117536. elevation: 1030m. Cultivated. Seed.
- PI 534372 donor id: MG 18160. origin: Tunisia. collected: June 29, 1976. other id: NSL 117537. elevation: 1030m. Cultivated. Seed.
- PI 534373 donor id: MG 18161. origin: Tunisia. collected: June 30, 1976. other id: NSL 117538. elevation: 820m. Cultivated. Seed.
- PI 534374 donor id: MG 18162. origin: Tunisia. collected: June 30, 1976. other id: NSL 117539. elevation: 820m. Cultivated. Seed.
- PI 534375 donor id: MG 18163. origin: Tunisia. collected: June 30, 1976. other id: NSL 117540. elevation: 800m. Cultivated. Seed.
- PI 534376 donor id: MG 18165. origin: Tunisia. collected: June 30, 1976. other id: NSL 117541. elevation: 840m. Cultivated. Seed.
- PI 534377 donor id: MG 18166. origin: Tunisia. collected: June 30, 1976. other id: NSL 117542. elevation: 1130m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534378 donor id: MG 18167. origin: Algeria. local name: Kala. collected: July 4, 1976. other id: NSL 117543. Cultivated. Seed.
- PI 534379 donor id: MG 18168. origin: Algeria. collected: July 4, 1976. other id: NSL 117544. elevation: 820m. Cultivated. Seed.
- PI 534380 donor id: MG 18169. origin: Algeria. collected: July 6, 1976. other id: NSL 117545. elevation: 40m. Wild. Seed.
- PI 534381 donor id: MG 18170. origin: Algeria. collected: July 6, 1976. other id: NSL 117546. elevation: 40m. Cultivated. Seed.
- PI 534382 donor id: MG 18171. origin: Algeria. collected: July 6, 1976. other id: NSL 117547. elevation: 60m. Cultivated. Seed.
- PI 534383 donor id: MG 18172. origin: Algeria. collected: July 6, 1976. other id: NSL 117548. elevation: 100m. Wild. Seed.
- PI 534384 donor id: MG 18173. origin: Algeria. local name: Oved Zenati. collected: July 6, 1976. other id: NSL 117549. elevation: 70m. Cultivated. Seed.
- PI 534385 donor id: MG 18174. origin: Algeria. collected: July 6, 1976. other id: NSL 117550. elevation: 70m. Cultivated. Seed.
- PI 534386 donor id: MG 18175. origin: Algeria. local name: Bidi 17. collected: July 6, 1976. other id: NSL 117551. elevation: 195m. Cultivated. Seed.
- PI 534387 donor id: MG 18176. origin: Algeria. local name: Bidi 17. collected: July 7, 1976. other id: NSL 117552. elevation: 285m. Cultivated. Seed.
- PI 534388 donor id: MG 18177. origin: Algeria. local name: Florxaurore. collected: July 7, 1976. other id: NSL 117553. elevation: 300m. Cultivated. Seed.
- PI 534389 donor id: MG 18178. origin: Algeria. local name: Hedba 3. collected: July 7, 1976. other id: NSL 117554. elevation: 395m. Cultivated. Seed.
- PI 534390 donor id: MG 18179. origin: Algeria. collected: July 7, 1976. other id: NSL 117555. elevation: 835m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534391 donor id: MG 18180. origin: Algeria. collected: July 7, 1976. other id: NSL 117556. elevation: 1000m. Cultivated. Seed.
- PI 534392 donor id: MG 18181. origin: Algeria. local name: Hedba. collected: July 7, 1976. other id: NSL 117557. elevation: 760m. Cultivated. Seed.
- PI 534393 donor id: MG 18182. origin: Algeria. local name: Oved Zenati. collected: July 8, 1976. other id: NSL 117558. elevation: 750m. Cultivated. Seed.
- PI 534394 donor id: MG 18183. origin: Algeria. collected: July 8, 1976. other id: NSL 117559. elevation: 890m. Cultivated. Seed.
- PI 534395 donor id: MG 18184. origin: Algeria. local name: Hedba. collected: July 8, 1976. other id: NSL 117560. elevation: 825m. Cultivated. Seed.
- PI 534396 donor id: MG 18185. origin: Algeria. collected: July 8, 1976. other id: NSL 117561. elevation: 950m. Wild. Seed.
- PI 534397 donor id: MG 18186. origin: Algeria. collected: July 8, 1976. other id: NSL 117562. elevation: 950m. Wild. Seed.
- PI 534398 donor id: MG 18187. origin: Algeria. collected: July 8, 1976. other id: NSL 117563. elevation: 1020m. Wild. Seed.
- PI 534399 donor id: MG 18188. origin: Algeria. local name: Hedba. collected: July 8, 1976. other id: NSL 117564. elevation: 940m. Cultivated. Seed.
- PI 534400 donor id: MG 18189. origin: Algeria. collected: July 8, 1976. other id: NSL 117565. elevation: 1000m. Cultivated. Seed.
- PI 534401 donor id: MG 18190. origin: Algeria. local name: Hedba. collected: August 9, 1976. other id: NSL 117566. elevation: 870m. Cultivated. Seed.
- PI 534402 donor id: MG 18191. origin: Algeria. collected: August 9, 1976. other id: NSL 117567. elevation: 930m. Cultivated. Seed.
- PI 534403 donor id: MG 18192. origin: Algeria. collected: July 9, 1976. other id: NSL 117568. elevation: 1100m. Wild. Seed.

PI 534272 to 534502-continued

- PI 534404 donor id: MG 18193. origin: Algeria. collected: July 9, 1976. other id: NSL 117569. elevation: 1000m. Cultivated. Seed.
- PI 534405 donor id: MG 18194. origin: Algeria. collected: July 9, 1976. other id: NSL 117570. elevation: 930m. Cultivated. Seed.
- PI 534406 donor id: MG 18195. origin: Algeria. collected: July 9, 1976. other id: NSL 117571. elevation: 870m. Cultivated. Seed.
- PI 534407 donor id: MG 18196. origin: Algeria. collected: July 9, 1976. other id: NSL 117572. elevation: 800m. Cultivated. Seed.
- PI 534408 donor id: MG 18197. origin: Algeria. collected: July 9, 1976. other id: NSL 117573. elevation: 820m. Cultivated. Seed.
- PI 534409 donor id: MG 18198. origin: Algeria. collected: July 9, 1976. other id: NSL 117574. elevation: 775m. Cultivated. Seed.
- PI 534410 donor id: MG 18199. origin: Algeria. collected: July 9, 1976. other id: NSL 117575. elevation: 700m. Cultivated. Seed.
- PI 534411 donor id: MG 18200. origin: Algeria. collected: July 9, 1976. other id: NSL 117576. elevation: 740m. Cultivated. Seed.
- PI 534412 donor id: MG 18201. origin: Algeria. local name: Hedba. collected: July 9, 1976. other id: NSL 117577. elevation: 810m. Cultivated. Seed.
- PI 534413 donor id: MG 18202. origin: Algeria. collected: July 10, 1976. other id: NSL 117578. elevation: 850m. Cultivated. Seed.
- PI 534414 donor id: MG 18203. origin: Algeria. collected: July 10, 1976. other id: NSL 117579. elevation: 850m. Wild. Seed.
- PI 534415 donor id: MG 18204. origin: Algeria. collected: July 10, 1976. other id: NSL 117580. elevation: 850m. Wild. Seed.
- PI 534416 donor id: MG 18205. origin: Algeria. collected: July 10, 1976. other id: NSL 117581. elevation: 1000m. Wild. Seed.

PI 534272 to 534502-continued

- PI 534417 donor id: MG 18206. origin: Algeria. collected: July 10, 1976. other id: NSL 117582. elevation: 1000m. Wild. Seed.
- PI 534418 donor id: MG 18207. origin: Algeria. collected: July 10, 1976. other id: NSL 117583. elevation: 1000m. Wild. Seed.
- PI 534419 donor id: MG 18208. origin: Algeria. collected: July 15, 1976. other id: NSL 117584. elevation: 830m. Wild. Seed.
- PI 534420 donor id: MG 18209. origin: Algeria. collected: July 15, 1976. other id: NSL 117585. elevation: 880m. Wild. Seed.
- PI 534421 donor id: MG 18210. origin: Algeria. collected: July 15, 1976. other id: NSL 117586. elevation: 940m. Wild. Seed.
- PI 534422 donor id: MG 18211. origin: Algeria. collected: July 15, 1976. other id: NSL 117587. elevation: 980m. Wild. Seed.
- PI 534423 donor id: MG 18212. origin: Algeria. collected: July 15, 1976. other id: NSL 117588. elevation: 1000m. Wild. Seed.
- PI 534424 donor id: MG 18213. origin: Algeria. collected: July 15, 1976. other id: NSL 117589. elevation: 1020m. Wild. Seed.
- PI 534425 donor id: MG 18214. origin: Algeria. collected: July 15, 1976. other id: NSL 117590. elevation: 1090m. Wild. Seed.
- PI 534426 donor id: MG 18215. origin: Algeria. collected: July 15, 1976. other id: NSL 117591. elevation: 1240m. Wild. Seed.
- PI 534427 donor id: MG 18216. origin: Algeria. collected: July 15, 1976. other id: NSL 117592. elevation: 1300m. Wild. Seed.
- PI 534428 donor id: MG 18217. origin: Algeria. collected: July 15, 1976. other id: NSL 117593. elevation: 1480m. Wild. Seed.
- PI 534429 donor id: MG 18218. origin: Algeria. collected: July 15, 1976. other id: NSL 117594. elevation: 1180m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534430 donor id: MG 18219. origin: Algeria. collected: July 16, 1976. other id: NSL 117595. elevation: 1060m. Cultivated. Seed.
- PI 534431 donor id: MG 18220. origin: Algeria. collected: July 16, 1976. other id: NSL 117596. elevation: 985m. Cultivated. Seed.
- PI 534432 donor id: MG 18221. origin: Algeria. collected: July 16, 1976. other id: NSL 117597. elevation: 970m. Cultivated. Seed.
- PI 534433 donor id: MG 18222. origin: Algeria. collected: July 16, 1976. other id: NSL 117598. elevation: 900m. Cultivated. Seed.
- PI 534434 donor id: MG 18223. origin: Algeria. collected: July 16, 1976. other id: NSL 117599. elevation: 890m. Cultivated. Seed.
- PI 534435 donor id: MG 18224. origin: Algeria. collected: July 16, 1976. other id: NSL 117600. elevation: 1290m. Cultivated. Seed.
- PI 534436 donor id: MG 18225. origin: Algeria. collected: July 17, 1976. other id: NSL 117601. elevation: 820m. Cultivated. Seed.
- PI 534437 donor id: MG 18226. origin: Algeria. local name: Hedba. collected: July 17, 1976. other id: NSL 117602. elevation: 790m. Cultivated. Seed.
- PI 534438 donor id: MG 18227. origin: Algeria. collected: July 1, 1976. other id: NSL 117603. elevation: 85m. Cultivated. Seed.
- PI 534439 donor id: MG 18228. origin: Algeria. collected: July 1, 1976. other id: NSL 117604. Cultivated. Seed.
- PI 534440 donor id: MG 18229. origin: Algeria. collected: July 1, 1976. other id: NSL 117605. Cultivated. Seed.
- PI 534441 donor id: MG 18230. origin: Algeria. other id: NSL 117606. Seed.
- PI 534442 donor id: MG 18231. origin: Algeria. collected: July 1, 1976. other id: NSL 117607. elevation: 33m. Cultivated. Seed.
- PI 534443 donor id: MG 18232. origin: Algeria. collected: July 1, 1976. other id: NSL 117608. elevation: 220m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534444 donor id: MG 18233. origin: Algeria. collected: July 1, 1976. other id: NSL 117609. elevation: 130m. Cultivated. Seed.
- PI 534445 donor id: MG 18234. origin: Algeria. collected: July 1, 1976. other id: NSL 117610. elevation: 30m. Wild. Seed.
- PI 534446 donor id: MG 18235. origin: Algeria. collected: July 2, 1976. other id: NSL 117611. elevation: 225m. Cultivated. Seed.
- PI 534447 donor id: MG 18236. origin: Algeria. collected: July 2, 1976. other id: NSL 117612. elevation: 360m. Wild. Seed.
- PI 534448 donor id: MG 18237. origin: Algeria. collected: July 2, 1976. other id: NSL 117613. Cultivated. Seed.
- PI 534449 donor id: MG 18238. origin: Algeria. collected: July 2, 1976. other id: NSL 117614. Cultivated. Seed.
- PI 534450 donor id: MG 18239. origin: Algeria. collected: July 2, 1976. other id: NSL 117615. elevation: 420m. Cultivated. Seed.
- PI 534451 donor id: MG 18240. origin: Algeria. collected: July 2, 1976. other id: NSL 117616. Cultivated. Seed.
- PI 534452 donor id: MG 18241. origin: Algeria. collected: July 2, 1976. other id: NSL 117617. elevation: 230m. Cultivated. Seed.
- PI 534453 donor id: MG 18242. origin: Algeria. other id: NSL 117618. Seed.
- PI 534454 donor id: MG 18243. origin: Algeria. collected: July 3, 1976. other id: NSL 117619. elevation: 600m. Wild. Seed.
- PI 534455 donor id: MG 18244. origin: Algeria. local name: Hedba. collected: July 3, 1976. other id: NSL 117620. elevation: 630m. Wild. Seed.
- PI 534456 donor id: MG 18245. origin: Algeria. collected: July 3, 1976. other id: NSL 117621. elevation: 730m. Cultivated. Seed.
- PI 534457 donor id: MG 18246. origin: Algeria. collected: July 3, 1976. other id: NSL 117622. elevation: 730m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534458 donor id: MG 18247. origin: Algeria. collected: July 3, 1976. other id: NSL 117623. elevation: 660m. Cultivated. Seed.
- PI 534459 donor id: MG 18248. origin: Algeria. collected: July 3, 1976. other id: NSL 117624. elevation: 650m. Cultivated. Seed.
- PI 534460 donor id: MG 18249. origin: Algeria. collected: July 3, 1976. other id: NSL 117625. elevation: 690m. Cultivated. Seed.
- PI 534461 donor id: MG 18250. origin: Algeria. collected: July 3, 1976. other id: NSL 117626. elevation: 850m. Wild. Seed.
- PI 534462 donor id: MG 18251. origin: Algeria. collected: July 3, 1976. other id: NSL 117627. elevation: 850m. Cultivated. Seed.
- PI 534463 donor id: MG 18252. origin: Algeria. local name: Oved Zenati. collected: July 11, 1976. other id: NSL 117628. elevation: 350m. Cultivated. Seed.
- PI 534464 donor id: MG 18253. origin: Algeria. collected: July 11, 1976. other id: NSL 117629. elevation: 680m. Cultivated. Seed.
- PI 534465 donor id: MG 18254. origin: Algeria. collected: July 12, 1976. other id: NSL 117630. elevation: 610m. Cultivated. Seed.
- PI 534466 donor id: MG 18255. origin: Algeria. collected: July 12, 1976. other id: NSL 117631. elevation: 600m. Cultivated. Seed.
- PI 534467 donor id: MG 18256. origin: Algeria. collected: July 12, 1976. other id: NSL 117632. elevation: 450m. Cultivated. Seed.
- PI 534468 donor id: MG 18257. origin: Algeria. collected: July 12, 1976. other id: NSL 117633. elevation: 230m. Cultivated. Seed.
- PI 534469 donor id: MG 18258. origin: Algeria. local name: Bidi 17. collected: July 12, 1976. other id: NSL 117634. elevation: 300m. Cultivated. Seed.
- PI 534470 donor id: MG 18259. origin: Algeria. collected: July 12, 1976. other id: NSL 117635. elevation: 500m. Cultivated. Seed.

PI 534272 to 534502-continued

- PI 534471 donor id: MG 18260. origin: Algeria. collected: July 12, 1976. other id: NSL 117636. elevation: 580m. Cultivated. Seed.
- PI 534472 donor id: MG 18261. origin: Algeria. collected: July 12, 1976. other id: NSL 117637. elevation: 920m. Wild. Seed.
- PI 534473 donor id: MG 18262. origin: Algeria. collected: July 12, 1976. other id: NSL 117638. elevation: 520m. Cultivated. Seed.
- PI 534474 donor id: MG 18263. origin: Algeria. local name: Bidi 17. collected: July 13, 1976. other id: NSL 117639. elevation: 750m. Cultivated. Seed.
- PI 534475 donor id: MG 18264. origin: Algeria. collected: July 13, 1976. other id: NSL 117640. elevation: 850m. Cultivated. Seed.
- PI 534476 donor id: MG 18265. origin: Algeria. collected: July 13, 1976. other id: NSL 117641. elevation: 980m. Cultivated. Seed.
- PI 534477 donor id: MG 18266. origin: Algeria. collected: July 13, 1976. other id: NSL 117642. elevation: 980m. Cultivated. Seed.
- PI 534478 donor id: MG 18267. origin: Algeria. collected: July 13, 1976. other id: NSL 117643. elevation: 930m. Cultivated. Seed.
- PI 534479 donor id: MG 18268. origin: Algeria. collected: July 13, 1976. other id: NSL 117644. elevation: 980m. Cultivated. Seed.
- PI 534480 donor id: MG 18269. origin: Algeria. collected: July 13, 1976. other id: NSL 117645. elevation: 980m. Cultivated. Seed.
- PI 534481 donor id: MG 26408. origin: Egypt. collected: April 24, 1978. other id: NSL 117646. elevation: 60m. Cultivated. Seed.
- PI 534482 donor id: MG 26409. origin: Egypt. collected: April 24, 1978. other id: NSL 117647. elevation: 60m. Cultivated. Seed.
- PI 534483 donor id: MG 26410. origin: Egypt. collected: April 25, 1978. other id: NSL 117648. elevation: 60m. Cultivated. Seed.

PI 534272 to 534502-continued

PI 534484 donor id: MG 26411. origin: Egypt. collected: April 25,
1978. other id: NSL 117649. elevation: 60m.
Cultivated. Seed.

PI 534485 donor id: MG 26412. origin: Egypt. collected: April 25,
1978. other id: NSL 117650. elevation: 60m.
Cultivated. Seed.

PI 534486 donor id: MG 26413. origin: Egypt. collected: April 25,
1978. other id: NSL 117651. elevation: 60m.
Cultivated. Seed.

PI 534487 donor id: MG 26414. origin: Egypt. collected: April 25,
1978. other id: NSL 117652. elevation: 60m.
Cultivated. Seed.

PI 534488 donor id: MG 26415. origin: Egypt. collected: April 25,
1978. other id: NSL 117653. elevation: 60m.
Cultivated. Seed.

PI 534489 donor id: MG 26416. origin: Egypt. collected: April 26,
1978. other id: NSL 117654. elevation: 70m.
Cultivated. Seed.

PI 534490 donor id: MG 26417. origin: Egypt. collected: April 26,
1978. other id: NSL 117655. elevation: 70m.
Cultivated. Seed.

PI 534491 donor id: MG 26418. origin: Egypt. collected: April 26,
1978. other id: NSL 117656. elevation: 70m.
Cultivated. Seed.

PI 534492 donor id: MG 26419. origin: Egypt. collected: April 27,
1978. other id: NSL 117657. elevation: 70m.
Cultivated. Seed.

PI 534493 donor id: MG 26420. origin: Egypt. collected: April 27,
1978. other id: NSL 117658. Wild. Seed.

PI 534494 donor id: MG 26421. origin: Egypt. collected: April 27,
1978. other id: NSL 117659. Wild. Seed.

PI 534495 donor id: MG 26422. origin: Egypt. collected: April 27,
1978. other id: NSL 117660. Wild. Seed.

PI 534496 donor id: MG 26423. origin: Egypt. collected: April 27,
1978. other id: NSL 117661. Wild. Seed.

PI 534497 donor id: MG 26424. origin: Egypt. collected: April 27,
1978. other id: NSL 117662. Wild. Seed.

PI 534272 to 534502-continued

- PI 534498 donor id: MG 26425. origin: Egypt. collected: April 27, 1978. other id: NSL 117663. Wild. Seed.
- PI 534499 donor id: MG 26426. origin: Egypt. collected: April 27, 1978. other id: NSL 117664. Wild. Seed.
- PI 534500 donor id: MG 26427. origin: Egypt. collected: April 27, 1978. other id: NSL 117665. elevation: 60m. Wild. Seed.
- PI 534501 donor id: MG 26428. origin: Egypt. collected: April 27, 1978. other id: NSL 117666. elevation: 70m. Wild. Seed.
- PI 534502 donor id: MG 26429. origin: Egypt. collected: April 27, 1978. other id: NSL 117667. Wild. Seed.

PI 534503 to 534509. *Hordeum vulgare* L. POACEAE Barley

Donated by: Hockett, E.A., USDA-ARS, Plant and Soil Science Department, Montana State University, Bozeman, Montana, United States; and Bowman, H.F., Plant and Soil Science Department, Montana State University, Bozeman, Montana, United States. remarks: Developed cooperatively by USDA-ARS and the Montana Agricultural Experiment Station and released 1 November, 1989. Received July 10, 1989.

- PI 534503 origin: United States. pedigree: Betzes(CIh0 6398)*7/Strip Tease(CIh0 6837). other id: CIh0 16570. other id: MT 04021. other id: GP-116. group: CSR-BARLEY. remarks: Awned derived (kk) isogenic line for evaluation of the hooded gene in cytoplasmic and nuclear background of awned cultivar Betzes. Plant height 80-85cm under irrigation at Bozeman. Annual. Breeding Material. Seed.
- PI 534504 origin: United States. pedigree: Betzes(CIh0 6398)*7/Strip Tease(CIh0 6837). other id: CIh0 16571. other id: MT 267001. other id: GP-117. group: CSR-BARLEY. remarks: Hooded semi-dwarf (KK) isogenic line for the evaluation of the hooded gene in cytoplasmic and nuclear background of awned cultivar Betzes. Plant height 65-70cm under irrigation at Bozeman. Annual. Breeding Material. Seed.

PI 534503 to 534509-continued

- PI 534505 **origin:** United States. **pedigree:** Betzes(CIho 6398)*7/Strip Tease(CIho 6837). **other id:** CIho 16572. **other id:** MT 267105. **other id:** GP-118. **group:** CSR-BARLEY. **remarks:** Awned derived semi-dwarf (kk) isogenic line for evaluation of the hooded gene in cytoplasmic and nuclear background in awned cultivar Betzes. Plant height 65-70cm under irrigation at Bozeman. Annual. Breeding Material. Seed.
- PI 534506 **origin:** United States. **pedigree:** Compana(CIho 5438)*7/CIho 2220. **other id:** CIho 16573. **other id:** MT 04121. **other id:** GP-119. **group:** CSR-BARLEY. **remarks:** Hooded isogenic line (KK) for evaluation of the awn gene in cytoplasmic and nuclear background of hooded CIho 2220 and evaluation of hooded gene when it is found in the cytoplasmic and nuclear background of awned Compana. Annual. Breeding Material. Seed.
- PI 534507 **origin:** United States. **pedigree:** Compana(CIho 5438)*7/CIho 2220. **other id:** CIho 16574. **other id:** MT 04141. **other id:** GP-120. **group:** CSR-BARLEY. **remarks:** Awned derived isogenic line (kk) for evaluation of the awn gene in cytoplasmic and nuclear background of hooded CIho 2220, and hooded gene when it is found in the cytoplasmic and nuclear background of awned Compana. Annual. Breeding Material. Seed.
- PI 534508 **origin:** United States. **pedigree:** CIho 2220*7/Betzes(CIho 6398), F3. **other id:** MT 84466. **other id:** GP-121. **group:** CSR-BARLEY. **remarks:** Awned derived isogenic line (kk) for evaluation of the hooded gene when it is found in cytoplasmic and nuclear background of awned cultivar Betzes and evaluation of awn gene in cytoplasmic and nuclear background of hooded CIho 2220. Annual. Breeding Material. Seed.
- PI 534509 **origin:** United States. **pedigree:** CIho 2220*7/Betzes(CIho 6398),F3. **other id:** MT 84468. **other id:** GP-122. **group:** CSR-BARLEY. **remarks:** Hooded isogenic line(KK) for evaluation of the hooded gene when it is found in the cytoplasmic and nuclear background of awned cultivar Betzes and evaluation of awn gene in cytoplasmic and nuclear background of hooded CIho 2220. Annual. Breeding Material. Seed.

PI 534510 to 534519. *Hordeum vulgare* L. POACEAE Barley

Donated by: Hockett, E.A., USDA-ARS, Plant and Soil Science Department, Montana State University, Bozeman, Montana, United States; and Bowman, H.F., Plant and Soil Science Department, Montana State University, Bozeman, Montana, United States. **remarks:** Developed cooperatively by USDA-ARS and Montana Agricultural Experiment Station and released 1 November, 1989. Received July 10, 1989.

PI 534510 **origin:** United States. **pedigree:** Betzes(CIho 6398)*7/Engleawnless(CIho 2505). **other id:** CIho 16575. **other id:** MT 9533. **other id:** GP-105. **group:** CSR-BARLEY. **remarks:** Two row awnless (short awned) isogenic line in which Lk gene was transferred from Engleawnless. Line has cytoplasm and 99% of recurrent parent. Annual. Breeding Material. Seed.

PI 534511 **origin:** United States. **pedigree:** Betzes(CIho 6398)*7/Engleawnless(CIho 2505). **other id:** CIho 16576. **other id:** MT 9535. **other id:** GP-106. **group:** CSR-BARLEY. **remarks:** Two row awned derived (lklk) selection from backcross F3 generation. Provides a measure of genetic similarity between backcross material and recurrent parent. Annual. Breeding Material. Seed.

PI 534512 **origin:** United States. **pedigree:** Compana(CIho 5438)*7/Engleawnless(CIho 2505). **other id:** CIho 16577. **other id:** MT 14313. **other id:** GP-107. **group:** CSR-BARLEY. **remarks:** Two row awnless (short awned) isogenic line in which Lk gene was transferred from Engleawnless. Line has cytoplasm and 99 % of genes of recurrent parent. Annual. Breeding Material. Seed.

PI 534513 **origin:** United States. **pedigree:** Compana(CIho 5438)*7/Engleawnless(CIho 2505). **other id:** CIho 16578. **other id:** MT 1436. **other id:** GP-108. **group:** CSR-BARLEY. **remarks:** Two row awned derived (lklk) selection from F3 backcross generation. Provides a measure of genetic similarity between backcross material and recurrent parent. Annual. Breeding Material. Seed.

PI 534514 **origin:** United States. **pedigree:** Dekap(CIho 3351)*7/Engleawnless(CIho 2505). **other id:** CIho 16579. **other id:** MT 9514. **other id:** GP-109. **group:** CSR-BARLEY. **remarks:** Two row awnless (short awned) isogenic line in which Lk gene was transferred from Engleawnless. Line has cytoplasm and 99% of genes of recurrent parent. Annual. Breeding Material. Seed.

PI 534510 to 534519-continued

- PI 534515 **origin:** United States. **pedigree:** Dekap(CIho 3351)*7/Engleawnless(CIho 2505). **other id:** CIho 16580. **other id:** MT 9513. **other id:** GP-110. **group:** CSR-BARLEY. **remarks:** Two row awned derived (lklk) selection from F3 backcross generation. Provides a measure of genetic similarity between backcross material and recurrent parent. Annual. Breeding Material. Seed.
- PI 534516 **origin:** United States. **cultivar:** RIDAWN. **pedigree:** Ingrid(CIho 10083)*7/Engleawnless(CIho 2505). **other id:** CV-172. **source:** Crop Sci. 20(4):0549 1980. **group:** CSR-BARLEY. **other id:** MT 9503. **other id:** CIho 15772. **remarks:** Two row awnless (short awned) isogenic line in which Lk gene was transferred from Engleawnless. Line has cytoplasm and 99% of genes of recurrent parent. Annual. Cultivar. Seed.
- PI 534517 **origin:** United States. **pedigree:** Engleawnless(CIho 2505)*7Ingrid(CIho 10083. **other id:** CIho 16582. **other id:** GP-112. **group:** CSR-BARLEY. **remarks:** Two row awned derived (lklk) selection from F3 backcross generation. Provides a measure of genetic similarity between backcross material and recurrent parent. Annual. Breeding Material. Seed.
- PI 534518 **origin:** United States. **pedigree:** Engleawnless(CIho 2505)*7/Betzes(CIho 6398). **other id:** MT 93615. **other id:** GP-113. **group:** CSR-BARLEY. **remarks:** Two row awned isogenic line in which the lk gene was transferred from Betzes. Awns about 15cm long. Annual. Breeding Material. Seed.
- PI 534519 **origin:** United States. **pedigree:** Engleawnless(CIho 2505)*7/Betzes(CIho 6398). **other id:** MT 93616. **other id:** GP-114. **group:** CSR-BARLEY. **remarks:** Two row awnless (short awned) derived iosgenic line. Awnes 0 to 2cm long. Normal barley sterility. Annual. Breeding Material. Seed.

PI 534520 to 534529. *Abelmoschus esculentus* (L.) Moench MALVACEAE
Okra

Donated by: Obari, K.S., Genetic Resources Unit, Agriculture Research Directorate, P.O. Box 113, Douma, Syria; and Astley, D., IBPGR, Rome, Italy; and Gheem, A., Sard, Syria. **remarks:** Received through IBPGR, Rome, Italy. Received June 25, 1987.

PI 534520 to 534529-continued

- PI 534520 donor id: OA 62. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 62.
locality: 15km S of Damascus, Damascus Province.
latitude: 33 deg. 26 min. N. longitude: 36 deg. 14 min.
E. elevation: 840m. Cultivated. Seed.
- PI 534521 donor id: OA 66. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 66.
locality: 6km N of Homs, Homs Province. latitude: 34
deg. 17 min. N. longitude: 36 deg. 44 min. E.
elevation: 620m. Cultivated. Seed.
- PI 534522 donor id: OA 91. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 91.
locality: 6km N of Homs, Homs Province. latitude: 34
deg. 17 min. N. longitude: 36 deg. 44 min. E.
elevation: 620m. Cultivated. Seed.
- PI 534523 donor id: OA 104. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 104.
locality: 7km SW of Homs, Homs Province. latitude: 34
deg. 42 min. N. longitude: 36 deg. 40 min. E.
elevation: 630m. Cultivated. Seed.
- PI 534524 donor id: OA 205. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 205.
locality: 7km S of Hama, Hama Province. latitude: 35
deg. 08 min. N. longitude: 36 deg. 45 min. E.
elevation: 540m. Cultivated. Seed.
- PI 534525 donor id: OA 215. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 215.
locality: 8km NE of Aleppo, Aleppo Province. latitude:
36 deg. 14 min. N. longitude: 37 deg. 23 min. E.
elevation: 580m. Cultivated. Seed.
- PI 534526 donor id: OA 271. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 271.
locality: 2km E of El Bab, Aleppo Province. latitude: 36
deg. 21 min. N. longitude: 37 deg. 33 min. E.
elevation: 530m. Cultivated. Seed.
- PI 534527 donor id: OA 307. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 307.
locality: 30km SW of Aleppo, Aleppo Province. latitude:
36 deg. 09 min. N. longitude: 36 deg. 58 min. E.
elevation: 510m. Cultivated. Seed.

PI 534520 to 534529-continued

PI 534528 donor id: OA 326. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 326.
locality: 16km W of Ariha, Idlib Province. latitude: 35
deg. 47 min. N. longitude: 36 deg. 28 min. E.
elevation: 420m. Cultivated. Seed.

PI 534529 donor id: OA 350. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 350.
locality: 16km S of Latakia, Latakia Province. latitude:
35 deg. 26 min. N. longitude: 35 deg. 57 min. E.
elevation: 70m. Cultivated. Seed.

PI 534530 to 534535. *Citrullus lanatus* (Thunb.) Matsum. & Nakai
CUCURBITACEAE Watermelon

Donated by: Obari, K.S., Genetic Resources Unit, Agriculture
Research Directorate, P.O. Box 113, Douma, Syria; and Astley, D.,
IBPGR, Rome, Italy; and Gheem, A., Sard, Syria. remarks: Received
through IBPGR, Rome, Italy. Received June 25, 1987.

PI 534530 donor id: OA 35. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 35.
locality: 40km N of Suweida, Suweida Province. latitude:
33 deg. 07 min. N. longitude: 36 deg. 34 min. E.
elevation: 900m. received as: *C. vulgaris*. Cultivated.
Seed.

PI 534531 donor id: OA 201. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 201.
locality: 18km S of Hama, Hama Province. latitude: 35
deg. 03 min. N. longitude: 36 deg. 42 min. E.
elevation: 570m. received as: *C. vulgaris*. Cultivated.
Seed.

PI 534532 donor id: OA 234. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 234.
locality: 8km NE of El Bab, Aleppo Province. latitude:
36 deg. 27 min. N. longitude: 37 deg. 35 min. E.
elevation: 600m. received as: *C. vulgaris*. Cultivated.
Seed.

PI 534533 donor id: OA 294. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 294.
locality: 5km N of Aleppo, Aleppo Province. latitude: 36
deg. 17 min. N. longitude: 37 deg. 12 min. E.
elevation: 540m. received as: *C. vulgaris*. Cultivated.
Seed.

PI 534530 to 534535-continued

PI 534534 donor id: OA 298. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 298.
locality: 30km SW of Aleppo, Aleppo Province. latitude:
36 deg. 09 min. N. longitude: 36 deg. 58 min. E.
elevation: 510m. received as: *C. vulgaris*. Cultivated.
Seed.

PI 534535 donor id: OA 327. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 327.
locality: 16km W of Ariha, Idlib Province. latitude: 35
deg. 47 min. N. longitude: 36 deg. 28 min. E.
elevation: 420m. received as: *C. vulgaris*. Cultivated.
Seed.

PI 534536 to 534538. *Cucumis melo* L. CUCURBITACEAE Melon

Donated by: Obari, K.S., Genetic Resources Unit, Agriculture
Research Directorate, P.O. Box 113, Douma, Syria; and Astley, D.,
IBPGR, Rome, Italy; and Gheem, A., Sard, Syria. remarks: Received
through IBPGR, Rome, Italy. Received June 25, 1987.

PI 534536 donor id: OA 216. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 216.
locality: 8km NE of Aleppo, Aleppo Province. latitude:
36 deg. 14 min. N. longitude: 37 deg. 23 min. E.
elevation: 580m. Cultivated. Seed.

PI 534537 donor id: OA 240. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 240.
locality: 8km NE of El Bab, Aleppo Province. latitude:
36 deg. 27 min. N. longitude: 37 deg. 35 min. E.
elevation: 600m. Cultivated. Seed.

PI 534538 donor id: OA 301. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 301.
locality: 30km SW of Aleppo, Aleppo Province. latitude:
36 deg. 09 min. N. longitude: 36 deg. 58 min. E.
elevation: 510m. Cultivated. Seed.

PI 534539 to 534545. *Cucumis sativus* L. CUCURBITACEAE Cucumber

Donated by: Obari, K.S., Genetic Resources Unit, Agriculture
Research Directorate, P.O. Box 113, Douma, Syria; and Astley, D.,
IBPGR, Rome, Italy; and Gheem, A., Sard, Syria. remarks: Received
through IBPGR, Rome, Italy. Received June 25, 1987.

PI 534539 to 534545-continued

- PI 534539 donor id: OA 5. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 5.
locality: 68km S of Damascus, Der'a Province. latitude:
32 deg. 50 min. N. longitude: 36 deg. 10 min. E.
elevation: 660m. Cultivated. Seed.
- PI 534540 donor id: OA 10. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 10.
locality: 12km from Daael to Ttafas, Der'a Province.
latitude: 32 deg. 45 min. N. longitude: 36 deg. 04 min.
E. elevation: 640m. Cultivated. Seed.
- PI 534541 donor id: OA 14. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 14.
locality: 10km SE of Damascus, Damascus Province.
latitude: 36 deg. 20 min. N. longitude: 33 deg. 29 min.
E. elevation: 770m. Cultivated. Seed.
- PI 534542 donor id: OA 273. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 273.
locality: 2km E of El Bab, Aleppo Province. latitude: 36
deg. 21 min. N. longitude: 37 deg. 33 min. E.
elevation: 530m. Cultivated. Seed.
- PI 534543 donor id: OA 292. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 292.
locality: 5km N of Aleppo, Aleppo Province. latitude: 36
deg. 17 min. N. longitude: 37 deg. 12 min. E.
elevation: 540m. Cultivated. Seed.
- PI 534544 donor id: OA 308. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 308.
locality: 30km SW of Aleppo, Aleppo Province. latitude:
36 deg. 09 min. N. longitude: 36 deg. 58 min. E.
elevation: 510m. Cultivated. Seed.
- PI 534545 donor id: OA 336. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 336.
locality: 16km W of Ariha, Idlib Province. latitude: 35
deg. 47 min. N. longitude: 36 deg. 28 min. E.
elevation: 420m. Cultivated. Seed.

PI 534546 to 534550. Cucurbita maxima Duch. CUCURBITACEAE Winter
squash

Donated by: Obari, K.S., Genetic Resources Unit, Agriculture
Research Directorate, P.O. Box 113, Douma, Syria; and Astley, D.,
IBPGR, Rome, Italy; and Gheem, A., Sard, Syria. remarks: Received
through IBPGR, Rome, Italy. Received June 25, 1987.

PI 534546 to 534550-continued

- PI 534546 donor id: OA 37. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 37.
locality: 40km N of Suweida, Suweida Province. latitude:
33 deg. 07 min. N. longitude: 36 deg. 34 min. E.
elevation: 900m. Cultivated. Seed.
- PI 534547 donor id: OA 265. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 265.
locality: Village of El Bab, Aleppo Province. latitude:
36 deg. 23 min. N. longitude: 37 deg. 32 min. E.
elevation: 580m. Cultivated. Seed.
- PI 534548 donor id: OA 278. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 278.
locality: 2km E of El Bab, Aleppo Province. latitude: 36
deg. 21 min. N. longitude: 37 deg. 33 min. E.
elevation: 530m. Cultivated. Seed.
- PI 534549 donor id: OA 306. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 306.
locality: 30km SW of Aleppo, Aleppo Province. latitude:
36 deg. 09 min. N. longitude: 36 deg. 58 min. E.
elevation: 510m. Cultivated. Seed.
- PI 534550 donor id: OA 314. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 314.
locality: 45km SW of Aleppo, Idlib Province. latitude:
36 deg. 03 min. N. longitude: 36 deg. 50 min. E.
elevation: 480m. Cultivated. Seed.

PI 534551 to 534556. *Cucurbita moschata* (Duch.) Duch. ex Poir.
CUCURBITACEAE Summer squash

Donated by: Obari, K.S., Genetic Resources Unit, Agriculture
Research Directorate, P.O. Box 113, Douma, Syria; and Astley, D.,
IBPGR, Rome, Italy; and Gheem, A., Sard, Syria. remarks: Received
through IBPGR, Rome, Italy. Received June 25, 1987.

- PI 534551 donor id: OA 40. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 40.
locality: 17km S of Damascus, Damascus Province.
latitude: 33 deg. 23 min. N. longitude: 36 deg. 25 min.
E. elevation: 740m. Cultivated. Seed.
- PI 534552 donor id: OA 119. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 119.
locality: 5km SW of Homs, Homs Province. latitude: 34
deg. 43 min. N. longitude: 36 deg. 44 min. E.
elevation: 630m. Cultivated. Seed.

PI 534551 to 534556-continued

- PI 534553 donor id: OA 223. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 223.
locality: 8km NE of Aleppo, Aleppo Province. latitude:
36 deg. 14 min. N. longitude: 37 deg. 23 min. E.
elevation: 580m. Cultivated. Seed.
- PI 534554 donor id: OA 280. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 280.
locality: 2km E of El Bab, Aleppo Province. latitude: 36
deg. 21 min. N. longitude: 37 deg. 33 min. E.
elevation: 530m. Cultivated. Seed.
- PI 534555 donor id: OA 286. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 286.
locality: 5km N of Aleppo, Aleppo Province. latitude: 36
deg. 17 min. N. longitude: 37 deg. 12 min. E.
elevation: 540m. Cultivated. Seed.
- PI 534556 donor id: OA 310. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 310.
locality: 30km SW of Aleppo, Aleppo Province. latitude:
36 deg. 09 min. N. longitude: 36 deg. 58 min. E.
elevation: 510m. Cultivated. Seed.

PI 534557 to 534572. Cucurbita pepo L. CUCURBITACEAE Pumpkin

Donated by: Obari, K.S., Genetic Resources Unit, Agriculture
Research Directorate, P.O. Box 113, Douma, Syria; and Astley, D.,
IBPGR, Rome, Italy; and Gheem, A., Sard, Syria. remarks: Received
through IBPGR, Rome, Italy. Received June 25, 1987.

- PI 534557 donor id: OA 2. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 2.
locality: 7km S of Damascus, Damascus Province.
latitude: 33 deg. 27 min. N. longitude: 36 deg. 17 min.
E. elevation: 950m. Cultivated. Seed.
- PI 534558 donor id: OA 3. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 3.
locality: 25km S of Damascus, Damascus Province.
latitude: 33 deg. 23 min. N. longitude: 36 deg. 15 min.
E. elevation: 840m. Cultivated. Seed.
- PI 534559 donor id: OA 7. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 7.
locality: 68km S of Damascus, Der'a Province. latitude:
32 deg. 50 min. N. longitude: 36 deg. 10 min. E.
elevation: 660m. Cultivated. Seed.

PI 534557 to 534572-continued

- PI 534560 donor id: OA 8. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 8.
locality: 5km from Daael to Ttafas, Der'a Province.
latitude: 32 deg. 46 min. N. longitude: 36 deg. 07 min.
E. elevation: 600m. Cultivated. Seed.
- PI 534561 donor id: OA 11. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 11.
locality: 6km W of Mzerib, Der'a Province. latitude: 32
deg. 41 min. N. longitude: 36 deg. 02 min. E.
elevation: 580m. Cultivated. Seed.
- PI 534562 donor id: OA 17. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 17.
locality: 10km SE of Damascus, Damascus Province.
latitude: 36 deg. 20 min. N. longitude: 33 deg. 29 min.
E. elevation: 770m. Cultivated. Seed.
- PI 534563 donor id: OA 20. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 20.
locality: 3km S of Kharabo, Damascus Province. latitude:
33 deg. 25 min. N. longitude: 36 deg. 30 min. E.
elevation: 740m. Cultivated. Seed.
- PI 534564 donor id: OA 36. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 36.
locality: 40km N of Suweida, Suweida Province. latitude:
33 deg. 07 min. N. longitude: 36 deg. 34 min. E.
elevation: 900m. Cultivated. Seed.
- PI 534565 donor id: OA 39. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 39.
locality: 17km S of Damascus, Damascus Province.
latitude: 33 deg. 23 min. N. longitude: 36 deg. 25 min.
E. elevation: 740m. Cultivated. Seed.
- PI 534566 donor id: OA 41. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 41.
locality: Airport road, 17km S of Damascus, Damascus
Province. latitude: 33 deg. 27 min. N. longitude: 36
deg. 24 min. E. elevation: 740m. Cultivated. Seed.
- PI 534567 donor id: OA 84. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 84.
locality: 6km N of Homs, Homs Province. latitude: 34
deg. 17 min. N. longitude: 36 deg. 44 min. E.
elevation: 620m. Cultivated. Seed.

PI 534557 to 534572-continued

- PI 534568 donor id: OA 127. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 127.
locality: 37km W of Homs towards Tartus, Homs Province.
latitude: 34 deg. 43 min. N. longitude: 36 deg. 24 min.
E. elevation: 400m. Cultivated. Seed.
- PI 534569 donor id: OA 143. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 143.
locality: 2km E of Yahmen towards Tartus, Tartus
Province. latitude: 34 deg. 55 min. N. longitude: 35
deg. 56 min. E. elevation: 180m. Cultivated. Seed.
- PI 534570 donor id: OA 156. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 156.
locality: 2km SW of Damascus, Damascus Province.
latitude: 33 deg. 30 min. N. longitude: 36 deg. 16 min.
E. elevation: 840m. Cultivated. Seed.
- PI 534571 donor id: OA 231. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 231.
locality: 8km NE of El Bab, Aleppo Province. latitude:
36 deg. 27 min. N. longitude: 37 deg. 35 min. E.
elevation: 600m. Cultivated. Seed.
- PI 534572 donor id: OA 341. origin: Syria. collected: 1985.
collector: K.S. Obari; D. Astley. collector id: OA 341.
locality: 36km E of Latakia, Latakia Province. latitude:
35 deg. 42 min. N. longitude: 36 deg. 03 min. E.
elevation: 260m. Cultivated. Seed.

PI 534573 to 534582. *Abelmoschus esculentus* (L.) Moench MALVACEAE
Okra

Donated by: Genetic Resources Unit, Agriculture Research
Directorate, P.O. Box 113, Douma, Syria. remarks: Received through
IBPGR, Rome, Italy. Collectors K.S. Obari, Y. Wajhani, G.A. Ali, and
W. Redaa, Genetic Resources Unit, Douma, Syria. Received July 05,
1988.

- PI 534573 donor id: OA 10307. origin: Syria. collected: 1986.
collector id: OA 10307. locality: 18km S of Jableh,
Latakia Province. latitude: 35 deg. 26 min. N.
longitude: 35 deg. 53 min. E. elevation: 140m.
Cultivated. Seed.
- PI 534574 donor id: OA 10309. origin: Syria. collected: 1986.
collector id: OA 10309. locality: 5km E of El Hef Latt.
Cr. Road, Latakia Province. latitude: 35 deg. 33 min. N.
longitude: 35 deg. 53 min. E. elevation: 150m.
Cultivated. Seed.

PI 534573 to 534582-continued

- PI 534575 donor id: OM 10406. origin: Syria. collected: 1986.
collector id: OM 10406. locality: Orchards in Aleppo,
Aleppo Province. latitude: 36 deg. 10 min. N.
longitude: 37 deg. 08 min. E. elevation: 440m.
Cultivated. Seed.
- PI 534576 donor id: OM 10407. origin: Syria. collected: 1986.
collector id: OM 10407. locality: Orchards in Aleppo,
Aleppo Province. latitude: 36 deg. 10 min. N.
longitude: 37 deg. 08 min. E. elevation: 440m.
Cultivated. Seed.
- PI 534577 donor id: OD 10419. origin: Syria. collected: 1986.
collector id: OD 10419. locality: Zehria, 1.5km W of
Izzaa, Der'a Province. latitude: 32 deg. 50 min. N.
longitude: 36 deg. 13 min. E. elevation: 700m.
Cultivated. Seed.
- PI 534578 donor id: OD 10512. origin: Syria. collected: 1986.
collector id: OD 10512. locality: 8km E of Shahba,
Suweida Province. latitude: 32 deg. 55 min. N.
longitude: 36 deg. 42 min. E. elevation: 1280m.
Cultivated. Seed.
- PI 534579 donor id: OD 10514. origin: Syria. collected: 1986.
collector id: OD 10514. locality: 10km E of Shahba,
Suweida Province. latitude: 32 deg. 55 min. N.
longitude: 36 deg. 42 min. E. elevation: 1280m.
Cultivated. Seed.
- PI 534580 donor id: OD 10526. origin: Syria. collected: 1986.
collector id: OD 10526. locality: 9km N of Suweida,
Suweida Province. latitude: 32 deg. 47 min. N.
longitude: 36 deg. 35 min. E. elevation: 1060m.
Cultivated. Seed.
- PI 534581 donor id: OD 10538. origin: Syria. collected: 1986.
collector id: OD 10538. locality: 4km W of El Keswiah,
Damascus Province. latitude: 33 deg. 22 min. N.
longitude: 36 deg. 11 min. E. elevation: 850m.
Cultivated. Seed.
- PI 534582 donor id: OD 10554. origin: Syria. collected: 1986.
collector id: OD 10554. locality: 8km SW of Damascus,
Damascus Province. latitude: 33 deg. 29 min. N.
longitude: 36 deg. 20 min. E. elevation: 820m.
Cultivated. Seed.

PI 534583 to 534599. *Citrullus lanatus* (Thunb.) Matsum. & Nakai
CUCURBITACEAE Watermelon

Donated by: Genetic Resources Unit, Agriculture Research Directorate, P.O. Box 113, Douma, Syria. **remarks:** Received through IBPGR, Rome, Italy. Collectors K.S. Obari, Y. Wajhani, G.A. Ali, and W. Redaa, Genetic Resources Unit, Douma, Syria. Received July 05, 1988.

- PI 534583 donor id: OM 10332. origin: Syria. collected: 1986. collector id: OM 10332. locality: 4km NW of Safira, Aleppo Province. latitude: 36 deg. 06 min. N. longitude: 37 deg. 23 min. E. elevation: 560m. received as: *C. vulgaris*. Cultivated. Seed.
- PI 534584 donor id: OM 10341. origin: Syria. collected: 1986. collector id: OM 10341. locality: 3km NW of Safira, Aleppo Province. latitude: 36 deg. 05 min. N. longitude: 37 deg. 24 min. E. elevation: 560m. received as: *C. vulgaris*. Cultivated. Seed.
- PI 534585 donor id: OM 10362. origin: Syria. collected: 1986. collector id: OM 10362. locality: 30km W of Raqqa, Raqqa Province. latitude: 35 deg. 50 min. N. longitude: 37 deg. 45 min. E. elevation: 460m. received as: *C. vulgaris*. Cultivated. Seed.
- PI 534586 donor id: OM 10371. origin: Syria. collected: 1986. collector id: OM 10371. locality: 30km W of Raqqa, Raqqa Province. latitude: 35 deg. 50 min. N. longitude: 37 deg. 45 min. E. elevation: 460m. received as: *C. vulgaris*. Cultivated. Seed.
- PI 534587 donor id: OM 10383. origin: Syria. collected: 1986. collector id: OM 10383. locality: 3km SW of Raqqa, Raqqa Province. latitude: 35 deg. 57 min. N. longitude: 39 deg. 00 min. E. elevation: 440m. received as: *C. vulgaris*. Cultivated. Seed.
- PI 534588 donor id: OM 10385. origin: Syria. collected: 1986. collector id: OM 10385. locality: 3km SW of Raqqa, Raqqa Province. latitude: 35 deg. 57 min. N. longitude: 39 deg. E. elevation: 440m. received as: *C. vulgaris*. Cultivated. Seed.
- PI 534589 donor id: OM 10391. origin: Syria. collected: 1986. collector id: OM 10391. locality: 117km W of Raqqa, Raqqa Province. latitude: 35 deg. 55 min. N. longitude: 38 deg. 05 min. E. elevation: 400m. received as: *C. vulgaris*. Cultivated. Seed.

PI 534583 to 534599-continued

- PI 534590 donor id: OM 10409. origin: Syria. collected: 1986.
collector id: OM 10409. locality: 8km S of Sarakeb-Idlib
Cr. Rd., Idlib Province. latitude: 35 deg. 42 min. N.
longitude: 36 deg. 46 min. E. elevation: 580m. received
as: *C. vulgaris*. Cultivated. Seed.
- PI 534591 donor id: OD 10422. origin: Syria. collected: 1986.
collector id: OD 10422. locality: 4km SW of Daael Der.
Cr. Road, Der'a Province. latitude: 32 deg. 44 min. N.
longitude: 36 deg. 07 min. E. elevation: 660m. received
as: *C. vulgaris*. Cultivated. Seed.
- PI 534592 donor id: OD 10508. origin: Syria. collected: 1986.
collector id: OD 10508. locality: 15km E of Shahba,
Suweida Province. latitude: 32 deg. 49 min. N.
longitude: 36 deg. 43 min. E. elevation: 140m. received
as: *C. vulgaris*. Cultivated. Seed.
- PI 534593 donor id: OD 10509. origin: Syria. collected: 1986.
collector id: OD 10509. locality: 10km E of Shahba,
Suweida Province. latitude: 32 deg. 50 min. N.
longitude: 36 deg. 41 min. E. elevation: 1420m.
received as: *C. vulgaris*. Cultivated. Seed.
- PI 534594 donor id: OD 10513. origin: Syria. collected: 1986.
collector id: OD 10513. locality: 10km E of Shahba,
Suweida Province. latitude: 32 deg. 55 min. N.
longitude: 36 deg. 42 min. E. elevation: 1280m.
received as: *C. vulgaris*. Cultivated. Seed.
- PI 534595 donor id: OD 10517. origin: Syria. collected: 1986.
collector id: OD 10517. locality: 10km E of Shahba,
Suweida Province. latitude: 32 deg. 55 min. N.
longitude: 36 deg. 42 min. E. elevation: 1280m.
received as: *C. vulgaris*. Cultivated. Seed.
- PI 534596 donor id: OD 10518. origin: Syria. collected: 1986.
collector id: OD 10518. locality: 8km S of Suweida,
Suweida Province. latitude: 32 deg. 41 min. N.
longitude: 36 deg. 55 min. E. elevation: 1150m.
received as: *C. vulgaris*. Cultivated. Seed.
- PI 534597 donor id: OD 10524. origin: Syria. collected: 1986.
collector id: OD 10524. locality: 5km SW of Suweida,
Suweida Province. latitude: 32 deg. 37 min. N.
longitude: 36 deg. 41 min. E. elevation: 1420m.
received as: *C. vulgaris*. Cultivated. Seed.

PI 534583 to 534599-continued

PI 534598 donor id: OD 10527. origin: Syria. collected: 1986.
collector id: OD 10527. locality: 9km NE of Suweida,
Suweida Province. latitude: 32 deg. 47 min. N.
longitude: 36 deg. 35 min. E. elevation: 1060m.
received as: C. vulgaris. Cultivated. Seed.

PI 534599 donor id: OD 10562. origin: Syria. collected: 1986.
collector id: OD 10562. locality: Alttibieh, Damascus
Province. latitude: 33 deg. 22 min. N. longitude: 36
deg. 13 min. E. elevation: 880m. received as: C.
vulgaris. Cultivated. Seed.

PI 534600 to 534605. Cucumis melo L. CUCURBITACEAE Melon

Donated by: Genetic Resources Unit, Agriculture Research
Directorate, P.O. Box 113, Douma, Syria. remarks: Received through
IBPGR, Rome, Italy. Collectors K.S. Obari, Y. Wajhani, G.A. Ali, and
W. Redaa, Genetic Resources Unit, Douma, Syria. Received July 05,
1988.

PI 534600 donor id: OM 10333. origin: Syria. collected: 1986.
collector id: OM 10333. locality: 4km NW of Safira,
Aleppo Province. latitude: 36 deg. 06 min. N.
longitude: 37 deg. 23 min. E. elevation: 560m.
Cultivated. Seed.

PI 534601 donor id: OM 10349. origin: Syria. collected: 1986.
collector id: OM 10349. locality: 1 km NW of Tadeh,
Aleppo Province. latitude: 36 deg. 20 min. N.
longitude: 37 deg. 32 min. E. elevation: 600m.
Cultivated. Seed.

PI 534602 donor id: OM 10365. origin: Syria. collected: 1986.
collector id: OM 10365. locality: 30km W of Raqqa, Raqqa
Province. latitude: 35 deg. 50 min. N. longitude: 37
deg. 45 min. E. elevation: 460m. Cultivated. Seed.

PI 534603 donor id: OM 10384. origin: Syria. collected: 1986.
collector id: OM 10384. locality: 3km SW of Raqqa, Raqqa
Province. latitude: 35 deg. 57 min. N. longitude: 39
deg. 00 min. E. elevation: 440m. Cultivated. Seed.

PI 534604 donor id: OM 10397. origin: Syria. collected: 1986.
collector id: OM 10397. locality: 117km W of Raqqa,
Raqqa Province. latitude: 35 deg. 55 min. N. longitude:
38 deg. 05 min. E. elevation: 400m. Cultivated. Seed.

PI 534600 to 534605-continued

PI 534605 donor id: OM 10528. origin: Syria. collected: 1986.
collector id: OM 10528. locality: 9km NE of Suweida,
Suweida Province. latitude: 32 deg. 47 min. N.
longitude: 36 deg. 35 min. E. elevation: 1060m.
Cultivated. Seed.

PI 534606 to 534612. Cucurbita maxima Duch. CUCURBITACEAE Winter
squash

Donated by: Genetic Resources Unit, Agriculture Research
Directorate, P.O. Box 113, Douma, Syria. remarks: Received through
IBPGR, Rome, Italy. Collectors K.S. Obari, Y. Wajhani, G.A. Ali, and
W. Redaa, Genetic Resources Unit, Douma, Syria. Received July 05,
1988.

PI 534606 donor id: OA 10308. origin: Syria. collected: 1986.
collector id: OA 10308. locality: 18km S of Jableh,
Latakia Province. latitude: 35 deg. 26 min. N.
longitude: 35 deg. 53 min. E. elevation: 140m.
Cultivated. Seed.

PI 534607 donor id: OD 10420. origin: Syria. collected: 1986.
collector id: OD 10420. locality: Ibtaa, Der'a Province.
latitude: 32 deg. 45 min. N. longitude: 36 deg. 14 min.
E. elevation: 670m. Cultivated. Seed.

PI 534608 donor id: OD 10461. origin: Syria. collected: 1986.
collector id: OD 10461. locality: Daria, Damascus
Province. latitude: 33 deg. 23 min. N. longitude: 36
deg. 17 min. E. elevation: 840m. Cultivated. Seed.

PI 534609 donor id: OD 10484. origin: Syria. collected: 1986.
collector id: OD 10484. locality: 1 km E of Babsharki,
Damascus Province. latitude: 33 deg. 31 min. N.
longitude: 36 deg. 18 min. E. elevation: 820m.
Cultivated. Seed.

PI 534610 donor id: OD 10523. origin: Syria. collected: 1986.
collector id: OD 10523. locality: 9km S of Suweida,
Suweida Province. latitude: 32 deg. 41 min. N.
longitude: 36 deg. 55 min. E. elevation: 1150m.
Cultivated. Seed.

PI 534611 donor id: OD 10545. origin: Syria. collected: 1986.
collector id: OD 10545. locality: 4km W of El Keswiah,
Damascus Province. latitude: 33 deg. 22 min. N.
longitude: 36 deg. 11 min. E. elevation: 850m.
Cultivated. Seed.

PI 534606 to 534612-continued

PI 534612 donor id: OD 10569. origin: Syria. collected: 1986.
collector id: OD 10569. locality: Alttibieh, 2km SE of
Keswiph, Damascus Province. latitude: 33 deg. 22 min. N.
longitude: 36 deg. 13 min. E. elevation: 880m.
Cultivated. Seed.

PI 534613 to 534619. Cucurbita moschata (Duch.) Duch. ex Poir.
CUCURBITACEAE Summer squash

Donated by: Genetic Resources Unit, Agriculture Research
Directorate, P.O. Box 113, Douma, Syria. remarks: Received through
IBPGR, Rome, Italy. Collectors K.S. Obari, Y. Wajhani, G.A. Ali, and
W. Redaa, Genetic Resources Unit, Douma, Syria. Received July 05,
1988.

PI 534613 donor id: OM 10337. origin: Syria. collected: 1986.
collector id: OM 10337. locality: 3km NW of Safira,
Aleppo. latitude: 36 deg. 05 min. N. longitude: 37 deg.
24 min. E. elevation: 560m. Cultivated. Seed.

PI 534614 donor id: OM 10355. origin: Syria. collected: 1986.
collector id: OM 10355. locality: El Bab, Aleppo
Province. latitude: 36 deg. 20 min. N. longitude: 37
deg. 32 min. E. elevation: 600m. Cultivated. Seed.

PI 534615 donor id: OM 10360. origin: Syria. collected: 1986.
collector id: OM 10360. locality: El Bab, Aleppo
Province. latitude: 36 deg. 20 min. N. longitude: 37
deg. 31 min. E. elevation: 640m. Cultivated. Seed.

PI 534616 donor id: OM 10372. origin: Syria. collected: 1986.
collector id: OM 10372. locality: 30km W of Raqqa, Raqqa
Province. latitude: 35 deg. 50 min. N. longitude: 37
deg. 45 min. E. elevation: 460m. Cultivated. Seed.

PI 534617 donor id: OM 10382. origin: Syria. collected: 1986.
collector id: OM 10382. locality: 3km SW of Raqqa, Raqqa
Province. latitude: 35 deg. 57 min. N. longitude: 39
deg. 00 min. E. elevation: 440m. Cultivated. Seed.

PI 534618 donor id: OM 10388. origin: Syria. collected: 1986.
collector id: OM 10388. locality: 117km W of Raqqa,
Aleppo Province. latitude: 35 deg. 55 min. N.
longitude: 38 deg. 50 min. E. elevation: 400m.
Cultivated. Seed.

PI 534619 donor id: OD 10456. origin: Syria. collected: 1986.
collector id: OM 10456. locality: Daria, Damascus
Province. latitude: 33 deg. 23 min. N. longitude: 36
deg. 17 min. E. elevation: 840m. Cultivated. Seed.

PI 534620 to 534641. Cucurbita pepo L. CUCURBITACEAE Pumpkin

Donated by: Genetic Resources Unit, Agriculture Research Directorate, P.O. Box 113, Douma, Syria. **remarks:** Received through IBPGR, Rome, Italy. Collectors K.S. Obari, Y. Wajhani, G.A. Ali, and W. Redaa, Genetic Resources Unit, Douma, Syria. Received July 05, 1988.

PI 534620 donor id: OA 10301. origin: Syria. collected: 1986. collector id: OA 10301. locality: 1 km E of Qard Latt. Cr. Road, Latakia Province. latitude: 35 deg. 26 min. N. longitude: 35 deg. 52 min. E. elevation: 190m. Cultivated. Seed.

PI 534621 donor id: OA 10304. origin: Syria. collected: 1986. collector id: OA 10304. locality: 2km S of Jableh, Latakia Province. latitude: 35 deg. 18 min. N. longitude: 35 deg. 59 min. E. elevation: 130m. Cultivated. Seed.

PI 534622 donor id: OA 10305. origin: Syria. collected: 1986. collector id: OA 10305. locality: 18km S of Jableh, Latakia Province. latitude: 35 deg. 26 min. N. longitude: 35 deg. 53 min. E. elevation: 140m. Cultivated. Seed.

PI 534623 donor id: OA 10310. origin: Syria. collected: 1986. collector id: OA 10310. locality: 24km S of Latakia, Latakia Province. latitude: 35 deg. 20 min. N. longitude: 35 deg. 56 min. E. elevation: 150m. Cultivated. Seed.

PI 534624 donor id: OA 10315. origin: Syria. collected: 1986. collector id: OA 10315. locality: 11km S of Baniyas, Tartus Province. latitude: 35 deg. 07 min. N. longitude: 35 deg. 54 min. E. elevation: 150m. Cultivated. Seed.

PI 534625 donor id: OA 10334. origin: Syria. collected: 1986. collector id: OA 10334. locality: 4km NW of Safira, Aleppo Province. latitude: 36 deg. 06 min. N. longitude: 37 deg. 23 min. E. elevation: 560m. Cultivated. Seed.

PI 534626 donor id: OA 10396. origin: Syria. collected: 1986. collector id: OA 10396. locality: 117km W of Raqqa, Aleppo Province. latitude: 35 deg. 55 min. N. longitude: 38 deg. 05 min. E. elevation: 400m. Cultivated. Seed.

PI 534627 donor id: OD 10421. origin: Syria. collected: 1986. collector id: OD 10421. locality: 6km S of Sheih Miskin, Der'a Province. latitude: 32 deg. 45 min. N. longitude: 36 deg. 14 min. E. elevation: 670m. Cultivated. Seed.

PI 534620 to 534641-continued

- PI 534628 donor id: OD 10428. origin: Syria. collected: 1986.
collector id: OD 10428. locality: 1 km W of Ttafas,
Der'a Province. latitude: 32 deg. 45 min. N. longitude:
36 deg. 05 min. E. elevation: 620m. Cultivated. Seed.
- PI 534629 donor id: OD 10429. origin: Syria. collected: 1986.
collector id: OD 10429. locality: 3km N of Daael, Der'a
Province. latitude: 32 deg. 45 min. N. longitude: 36
deg. 07 min. E. elevation: 660m. Cultivated. Seed.
- PI 534630 donor id: OD 10430. origin: Syria. collected: 1986.
collector id: OD 10430. locality: 3km SW of Ttafas,
Der'a Province. latitude: 32 deg. 44 min. N. longitude:
36 deg. 08 min. E. elevation: 620m. Cultivated. Seed.
- PI 534631 donor id: OD 10440. origin: Syria. collected: 1986.
collector id: OD 10440. locality: Ghabagheb, Der'a
Province. latitude: 33 deg. 11 min. N. longitude: 36
deg. 15 min. E. elevation: 820m. Cultivated. Seed.
- PI 534632 donor id: OD 10460. origin: Syria. collected: 1986.
collector id: OD 10460. locality: Daria, Damascus
Province. latitude: 33 deg. 23 min. N. longitude: 36
deg. 17 min. E. elevation: 840m. Cultivated. Seed.
- PI 534633 donor id: OD 10462. origin: Syria. collected: 1986.
collector id: OD 10462. locality: Daria, Damascus
Province. latitude: 33 deg. 23 min. N. longitude: 36
deg. 17 min. E. elevation: 840m. Cultivated. Seed.
- PI 534634 donor id: OD 10473. origin: Syria. collected: 1986.
collector id: OD 10473. locality: 6km SW of Damascus,
Damascus Province. latitude: 33 deg. 29 min. N.
longitude: 36 deg. 17 min. E. elevation: 860m.
Cultivated. Seed.
- PI 534635 donor id: OD 10481. origin: Syria. collected: 1986.
collector id: OD 10481. locality: 1 km E of Babsharki,
Damascus Province. latitude: 33 deg. 31 min. N.
longitude: 36 deg. 18 min. E. elevation: 820m.
Cultivated. Seed.
- PI 534636 donor id: OD 10488. origin: Syria. collected: 1986.
collector id: OD 10488. locality: 18km from Babsharki to
Dyr Salman, Damascus Province. latitude: 33 deg. 28 min.
N. longitude: 36 deg. 33 min. E. elevation: 780m.
Cultivated. Seed.

PI 534620 to 534641-continued

- * PI 534637 *Phaseolus vulgaris* L. FABACEAE
donor id: OD 10506. origin: Syria. collected: 1986.
collector id: OD 10506. locality: 2km E of Tesrin,
Damascus Province. latitude: 33 deg. 31 min. N.
longitude: 36 deg. 28 min. E. elevation: 780m.
Cultivated. Seed.
- PI 534638 donor id: OD 10515. origin: Syria. collected: 1986.
collector id: OD 10515. locality: 10km E of Shahba,
Suweida Province. latitude: 32 deg. 55 min. N.
longitude: 36 deg. 42 min. E. elevation: 1280m.
Cultivated. Seed.
- PI 534639 donor id: OD 10522. origin: Syria. collected: 1986.
collector id: OD 10522. locality: 9km S of Suweida,
Suweida Province. latitude: 32 deg. 41 min. N.
longitude: 36 deg. 55 min. E. elevation: 1150m.
Cultivated. Seed.
- PI 534640 donor id: OD 10542. origin: Syria. collected: 1986.
collector id: OD 10542. locality: 4km W of El Keswieh,
Damascus Province. latitude: 33 deg. 22 min. N.
longitude: 36 deg. 11 min. E. elevation: 850m.
Cultivated. Seed.
- PI 534641 donor id: OD 10561. origin: Syria. collected: 1986.
collector id: OD 10561. locality: Alttibieh, Damascus
Province. latitude: 33 deg. 22 min. N. longitude: 36
deg. 13 min. E. elevation: 880m. Cultivated. Seed.

PI 534642 to 534644. *Lagerstroemia* hybrid LYTHRACEAE

Donated by: Egolf, D.R., U.S. National Arboretum, USDA-ARS, 3501 New
York Ave., N.E., Washington, D.C., United States. Received August
17, 1989.

- PI 534642 donor id: NA 54962. origin: United States. cultivar:
CADD0. pedigree: Open pollinated seedling selection from
Basham's Party Pink (*L. indica*/*L. fauriei*)/Cherokee (*L.*
indica). remarks: Plant semi-dwarf, 2.5m tall and 2.5m
wide in 18 years. Trunk light cinnamon brown
(Greyed-Orange 166c). Foliage dark green, bright orange
in autumn (Orange Red 34A to Red 46A). Flowers bright
pink (Red Purple 63B). Adapted to USDA zone 7b. disease
resistance: Mildew (*Erysiphe lagerstroemiae*). Cultivar.
Plant.

PI 534642 to 534644-continued

PI 534643 **donor id:** NA 60884. **origin:** United States. **cultivar:** CHOCTAW. **pedigree:** Pink Lace (L. indica)/L. fauriei//Potomac (L. indica). **remarks:** Tree 5.7m tall and 6.1m wide in 19 years. Trunk light cinnamon brown (Greyed-Orange 166D to Greyed-Orange 166B). Foliage dark green, bronze to maroon (Greyed-Red 179A to Greyed-Red 180A) in autumn. Flowers bright pink (Red 55B). Adapted to USDA zone 7b. **disease resistance:** Mildew (Erysiphe lagerstroemiae). Cultivar. Plant.

PI 534644 **donor id:** NA 54972. **origin:** United States. **cultivar:** TONTO. **pedigree:** Pink Lace (L. indica)/L. fauriei//Catawba (L. indica)// Tuscarora (L. indica). **remarks:** Plant semi-dwarf, 2.5m tall and 2.5m wide in 15 years. Trunk cream (Yellow-Orange 7b) to taupe (Grey-Brown 199B). Foliage red tingled when young becomes dark green, maroon (Greyed-Red 199A) in autumn. Flowers dark fuchsia (Red purple 61B). Adapted to USDA zone 7b. **disease resistance:** Mildew (Erysiphe lagerstroemiae). Cultivar. Plant.

PI 534645. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: McBlain, B.A., Department of Agronomy, Ohio Agric. Res. and Development Center, Ohio State University, Wooster, Ohio, United States. **remarks:** Developed by Ohio State University (OARDC-OSU) and released in 1987. Received August 15, 1989.

origin: United States. **cultivar:** RESNIK. **pedigree:** A3127*4/L24, BC3F2 Selection. **other id:** CV-244. **group:** CSR-SOYBEAN. **other id:** HM8471. **other id:** PVP 8700126. **source:** Certificate in force. **group:** PVPO. **restricted:** REQ. **remarks:** Cultivar with high yield and multi-race phytophthora rot resistance. Maturity Group III. Flowers purple. Pubescence tawny. Pods tan. Seed dull yellow with black hila. Adapted from 39 to 41 degree latitude. Good emergence at 25 degree C. Seed yield 6% higher, seed quality 15% better, and seed protein 0.4% more than Harper. Susceptible to Pmg races 12, 16, 19, 20 and 25, and brown stem rot. **disease resistance:** Phytophthora rot, pod and stem blight. Moderate to purple seed stain, downy & powdery mildew. Soybean mosaic virus seed mottling, bacterial tan spot. Annual. Cultivar. Seed.

PI 534646. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: McBlain, B.A., Department of Agronomy, Ohio Agric. Res. and Development Center, Ohio State University, Wooster, Ohio, United States. **remarks:** Developed by Ohio State University (OARDC-OSU) and released in 1987. Received August 15, 1989.

PI 534646-continued

origin: United States. **cultivar:** FLYER. **pedigree:** A3127*4/L24, BC3F2 Selection. **other id:** CV-245. **group:** CSR-SOYBEAN. **other id:** HM8469. **other id:** PVP 8700125. **source:** Certificate in force. **group:** PVPO. **restricted:** REQ. **remarks:** Cultivar with high yield and multi-race phytophthora rot resistance. Maturity Group IV. Flowers purple. Pubescence tawny. Pods tan. Seed dull yellow with black hila. Adapted from 38 to 40 degree North latitude. Susceptible to Pmg races 12, 16, 19, 20, and 25. **disease resistance:** Phytophthora rot (Phytophthora megasperma f. sp. glycinea). Moderate to purple seed stain, downy & powdery mildew. Pod and stem blight (Diaporthe phaseolorum). Annual. Cultivar. Seed.

PI 534647. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: McBlain, B.A., Department of Agronomy, Ohio Agric. Res. and Development Center, Ohio State University, Wooster, Ohio, United States. **remarks:** Developed by Ohio State University (OARDC-OSU) and released in 1987. Received August 15, 1989.

origin: United States. **cultivar:** GR8836. **pedigree:** A3127*4/L24, BC3F2 Selection. **other id:** CV-246. **group:** CSR-SOYBEAN. **other id:** HM8473. **other id:** PVP 8700127. **source:** Certificate in force. **group:** PVPO. **restricted:** REQ. **remarks:** Cultivar with high yield and multi-race phytophthora rot resistance. Maturity Group III. Flowers purple. Pubescence tawny. Pods tan. Seed dull yellow with black hila. Adapted from 39 to 41 degree North latitude. Yield 11% higher than Harper. Susceptible to Pmg races 12, 16, 19, 20, and 25. **disease resistance:** Phytophthora rot, pod and stem blight, brown stem rot. Soybean mosaic virus (SMV) seed mottling. Moderate to purple seed stain, downy & powdery mildew. Annual. Cultivar. Seed.

PI 534648. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: McBlain, B.A., Department of Agronomy, Ohio Agric. Res. and Development Center, Ohio State University, Wooster, Ohio, United States. **remarks:** Developed by Ohio State University (OARDC-OSU) and released in 1987. Received July 31, 1989.

origin: United States. **cultivar:** GR8936. **pedigree:** A3127/L24, F5 Selection. **other id:** CV-247. **group:** CSR-SOYBEAN. **other id:** HM8486. **other id:** PVP 8700128. **source:** Certificate in force. **group:** PVPO. **restricted:** REQ. **remarks:** Cultivar with high yield and multi-race phytophthora rot resistance. Maturity Group III. Flowers white. Pubescence tawny. Pods tan. Seed dull yellow with black hila. Adapted from 39 to 41 degree North latitude. Yield 6% and 7% higher than A3127 and Harper in Ohio. Susceptible to Pmg races 12, 16, 19, 20, and 25. **disease resistance:** Phytophthora rot (*Phytophthora megasperma* f. sp. *glycinea*). Moderate to pod and stem blight (*Diaporthe phaseolourm*). Powdery mildew (*Microspora diffusa*). Annual. Cultivar. Seed.

PI 534649 to 534658. *Helianthus annuus* L. ASTERACEAE Sunflower

Donated by: Miller, J.F.; Gulya, T.J., USDA-ARS, Northern Crop Science Lab., North Dakota State University, Fargo, North Dakota, United States. **remarks:** Developed cooperatively by USDA-ARS and North Dakota Agricultural Experiment Station, Fargo, North Dakota and released April, 1988. Received August 15, 1910.

PI 534649 **donor id:** RHA 363. **origin:** United States. **pedigree:** Hysun 33/RHA 274, F5 derived F7. **other id:** GP-110. **group:** CSR-SUNFLOWER. **remarks:** Germplasm restorer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Genes for fertility restoration in male sterile cytoplasm (*H. petiolaris*) present. Plant height 76cm. Upper stem branching. Seed oil content 511gms per kg. Days to 50% bloom 67. Susceptible to downy mildew (*Plasmopara halstedii*) races 1 to 5 and sunflower rust (*Puccinia helianthi*) race 4. **disease resistance:** Sunflower rust (*Puccinia helianthi*) races 1 to 3. Annual. Genetic Material. Seed.

PI 534650 **donor id:** RHA 364. **origin:** United States. **pedigree:** F6 derived restorer line selected from Romanian hybrid Felix. **other id:** GP-111. **group:** CSR-SUNFLOWER. **remarks:** Germplasm restorer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Genes for fertility restoration in male sterile cytoplasm (*H. petiolaris*) present. Plant height 75cm. Single head. Days to 50% bloom 63. Seed oil content 505gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 1 to 5. and sunflower rust (*Puccinia helianthi*) races 1 to 4. **disease resistance:** Tolerance to sclerotinia wilt (*Sclerotinia sclerotiorum*). Annual. Genetic Material. Seed.

PI 534649 to 534658-continued

PI 534651 **donor id:** RHA 365. **origin:** United States. **pedigree:** F6 derived restorer line selected from Romanian hybrid Select. **other id:** GP-112. **group:** CSR-SUNFLOWER. **remarks:** Germplasm restorer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Genes for fertility restoration in male sterile cytoplasm (*H. petiolaris*) present. Plant height 72cm. Single head. Days to 50% bloom 64. Seed oil content 512gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 3 to 5 and sunflower rust (*Puccinia helianthi*) races 2 and 4. **disease resistance:** Downy mildew (*Plasmopara halstedii*) races 1 and 2. Sunflower rust (*Puccinia helianthi*) races 1 and 3. Tolerance to sclerotinia wilt (*Sclerotinia sclerotiorum*). Annual. Genetic Material. Seed.

PI 534652 **donor id:** RHA 366. **origin:** United States. **pedigree:** RF-8784/RHA 274, F5 derived F7. **other id:** GP-113. **group:** CSR-SUNFLOWER. **remarks:** Germplasm restorer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Genes for fertility restoration in male sterile cytoplasm (*H. petiolaris*) present. Plant height 74cm. Single head. Days to 50% bloom 63. Seed oil content 496gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 3 to 5 and sunflower rust (*Puccinia helianthi*) races 1 to 4. **disease resistance:** Downy mildew (*Plasmopara halstedii*) races 1 and 2. Annual. Genetic Material. Seed.

PI 534653 **donor id:** RHA 367. **origin:** United States. **pedigree:** NS-H-26(Novosol)/RHA 274, F5 derived F7 Selection. **other id:** GP-114. **group:** CSR-SUNFLOWER. **remarks:** Germplasm restorer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Genes for fertility restoration in male sterile cytoplasm (*H. petiolaris*) present. Plant height 75cm. Upper stem branching. Days to 50% bloom 63. Seed oil content 495gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 3 to 5, and sunflower rust race 4. **disease resistance:** Downy mildew (*Plasmopara halstedii*) races 1 and 2. Sunflower rust (*Puccinia helianthi*) races 1 to 3. Annual. Genetic Material. Seed.

PI 534649 to 534658-continued

- PI 534654 **donor id:** RHA 368. **origin:** United States. **pedigree:** NS-H-27(Gloriasol)/RHA 274, F5 derived F7 Selection. **other id:** GP-115. **group:** CSR-SUNFLOWER. **remarks:** Germplasm restorer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Genes for fertility restoration in male sterile cytoplasm (*H. petiolaris*) present. Plant height 64cm. Upper stem branching. Days to 50% bloom 60. Seed oil content 500gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 3 to 5, and sunflower rust races 3 and 4. **disease resistance:** Downy mildew (*Plasmopara halstedii*) race 1 and 2. Sunflower rust (*Puccinia heliathi*) races 1 and 2. Annual. Genetic Material. Seed.
- PI 534655 **donor id:** HA 369. **origin:** United States. **pedigree:** F6 derived maintainer line from ARG 8018. **other id:** GP-116. **group:** CSR-SUNFLOWER. **remarks:** Germplasm maintainer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Plant height 81cm. Days to 50% bloom 62. Seed oil content 456gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 1 to 5 and sunflower rust (*Puccinia helianthi*) race 4. **disease resistance:** Sunflower rust (*Puccinia helianthi*) races 1 to 4. Annual. Genetic Material. Seed.
- PI 534656 **donor id:** HA 370. **origin:** United States. **pedigree:** F6 derived maintainer line from RK-74-198. **other id:** GP-117. **group:** CSR-SUNFLOWER. **remarks:** Germplasm maintainer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Plant height 81cm. Days to 50% bloom 63. Seed oil content 460gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 2 to 5 and sunflower rust (*Puccinia helianthi*) races 3 and 4. **disease resistance:** Downy mildew (*Plasmopara halstedii*) race 1. Sunflower rust (*Puccinia helianthi*) races 1 and 2. Annual. Genetic Material. Seed.
- PI 534657 **donor id:** HA 371. **origin:** United States. **pedigree:** F6 derived maintainer line from H52. **other id:** GP-118. **group:** CSR-SUNFLOWER. **remarks:** Germplasm maintainer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Plant height 82cm. Days to 50% bloom 63. Seed oil content 461gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 1 to 5 and sunflower rust (*Puccinia helianthi*) races 1, 3, and 4. **disease resistance:** Sunflower rust (*Puccinia helianthi*) race 2. Annual. Genetic Material. Seed.

PI 534649 to 534658-continued

PI 534658 donor id: HA 372. origin: United States. pedigree: F6 derived maintainer line from H55. other id: GP-119. group: CSR-SUNFLOWER. remarks: Germplasm maintainer line with genetic diversity for agronomic and morphological characteristics and seed oil content. Plant height 78cm. Days to 50% bloom 62. Seed oil content 467gms per kg. Susceptible to downy mildew (*Plasmopara halstedii*) races 1 to 5 and sunflower rust (*Puccinia helianthi*) race 1, 3 and 4. disease resistance: Sunflower rust (*Puccinia helianthi*) race 2. Annual. Genetic Material. Seed.

PI 534659. *Zea mays* L. POACEAE Corn

Donated by: West, D.R., Tennessee Agricultural Exp. Stn., University of Tennessee, Knoxville, Tennessee, United States. remarks: Developed by the Tennessee Agricultural Experiment Station, University of Tennessee, Knoxville and released February, 1989. Received August 15, 1989.

* *Zea mays* L. subsp. *mays* POACEAE Corn
origin: United States. cultivar: T169. pedigree: T226/Mol18W(F2)/2/T226. other id: PL-136. group: CSR-MAIZE. remarks: Parental line with potential to produce white dents in hybrids adapted to Southern U.S. Maturity AES1200. Plants tall, vigorous with large stalks. Ears short, girthy, with good husk protection. Cobs white with 16-18 kernel rows. Kernels white, medium-sized, dimple dent. Susceptible to maize dwarf mosaic-strain A/maize chlorotic dwarf virus complex. Annual. Breeding Material. Seed.

PI 534660 to 534662. *Cuphea aequipetala* Cav. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534660 donor id: Gr. 814. origin: Mexico. collected: September 21, 1981. collector: S.A. Graham. collector id: Gr. 814. other id: Ames 4897. group: Ames. other id: AZ148. locality: Field, adjacent to Hotel Bonampak, outskirts of San Cristobal at junction of bypass to Comitan. elevation: 2100m. remarks: Erect, supported by low shrubs. Wild. Seed.

PI 534661 donor id: Gr. 820. origin: Mexico. collected: September 21, 1981. collector: S.A. Graham. collector id: Gr. 820. other id: Ames 4898. group: Ames. other id: AZ153. locality: Open pine zone, 17km SE of Rincon Chamula on hwy 195. remarks: Plant habit prostrate. Wild. Seed.

PI 534660 to 534662-continued

PI 534662 **origin:** Mexico. **pedigree:** Graham 680(procumbent)/Graham 692(erect). **other id:** Ames 6070. **group:** Ames. **remarks:** Progency of Graham 680(procumbent)/Graham 692(erect). Cultivated. Seed.

PI 534663 to 534664. *Cuphea angustifolia* Jacq. ex Koehne LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534663 **donor id:** Gr. 677. **origin:** Mexico. **collected:** September 03, 1978. **collector:** S.A. Graham. **collector id:** Gr. 677. **other id:** Ames 8316. **group:** Ames. **locality:** Along stream bank of Rio de la Y., 55km SSW of intersection of hwy 131 with hwy 175 (Puerto Escondido road) and 2.2km N on San Sebastian de las Grutas road. **remarks:** Common under Taxodium. Perennial. Wild. Seed.

PI 534664 **donor id:** Gr. 807. **origin:** Mexico. **collected:** September 18, 1981. **collector:** S.A. Graham. **collector id:** Gr. 807. **other id:** Ames 4892. **group:** Ames. **other id:** AZ145. **locality:** Low field with standing water, dense high grass, 16km N of Oaxaca on hwy 190, just N of road to Etla. **elevation:** 1550m. **remarks:** Stems non-sticky. Petals pink to nearly white. Wild. Seed.

PI 534665. *Cuphea calcarata* Benth. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 714. **origin:** Mexico. **collected:** August 28, 1981. **collector:** S.A. Graham. **collector id:** Gr. 714. **other id:** Ames 4837. **group:** Ames. **other id:** AZ66. **locality:** 11km NE of Ixtlahuacan on hwy 54. **elevation:** 2700m. Wild. Seed.

PI 534666. *Cuphea calophylla* Cham. & Schldl. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: C58. **origin:** Brazil. **collector:** R.M. Klein. **collector id:** C58. **other id:** Ames 8317. **group:** Ames. **remarks:** Received from F. Hirsinger. Perennial. Wild. Seed.

PI 534667 to 534668. *Cuphea calophylla* var. *mesostemon* (Koehne) Lourt.
LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534667 **donor id:** Gr. 923. **origin:** Brazil. **collected:** November 08, 1985. **collector:** S.A. Graham. **collector id:** Gr. 923. **other id:** Ames 6052. **group:** Ames. **locality:** Open, short-grass hillside campo, along edges of path to town, soil sandy, gravelly, 1/2km S of Campinha on road from Curitiba to Grande do Sul. **remarks:** Petals medium purple with dark central vein. Common. Wild. Seed.

PI 534668 **donor id:** Gr. 839. **origin:** Brazil. **collected:** February 26, 1982. **collector:** S.A. Graham. **collector id:** Gr. 839. **other id:** Ames 4933. **group:** Ames. **other id:** AZ165. **locality:** Roadside, Rua Senador Salgado Filho, at Horto Botanico Municipal, Municipal Curitiba. **remarks:** Stems spreading, decumbent. Perennial. Wild. Seed.

PI 534669 to 534674. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.
LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534669 **donor id:** Gr. 685. **origin:** Mexico. **collected:** September 05, 1978. **collector:** S.A. Graham. **collector id:** Gr. 685. **other id:** Ames 4936. **group:** Ames. **other id:** AZ9. **locality:** Roadside, 4.5km SE of Coscomatepec on hwy 131, N of bridge. **elevation:** 1400m. **remarks:** Chromosome no.=8. Wild. Seed.

PI 534670 **donor id:** Gr. 850. **origin:** Brazil. **collected:** March 04, 1982. **collector:** S.A. Graham. **collector id:** Gr. 850. **other id:** Ames 4937. **group:** Ames. **other id:** AZ173. **locality:** W end of bridge over Rio Dos Almas on Curitiba-Irati Rd., 21.5km E of Irati, Munic Teixeira Soares. **elevation:** 950m. **remarks:** Stems and flowers sticky. Petals deep purple rose. Wild. Seed.

PI 534671 **donor id:** Gr. 851. **origin:** Brazil. **collected:** March 05, 1982. **collector:** S.A. Graham. **collector id:** Gr. 851. **other id:** Ames 4938. **group:** Ames. **other id:** AZ174. **locality:** Rio Imbituva, SW of intersection of Imbituva and road to Ponta Grossa Munic. Imertiwa. **elevation:** 950m. **remarks:** Petals deep purple rose. Wild. Seed.

PI 534669 to 534674-continued

PI 534672 donor id: Gr. 915. origin: Brazil. collected: March 23, 1982. collector: S.A. Graham. collector id: Gr. 915. other id: Ames 4939. group: Ames. other id: AZ204. locality: Waste area in garden, Horto Municipal, Curitiba. remarks: Plants to 0.5m tall. Wild. Seed.

PI 534673 donor id: Gr. 935. origin: Brazil. collected: November 13, 1985. collector: S.A. Graham. collector id: Gr. 935. other id: Ames 6055. group: Ames. locality: Disturbed vacant lot along the edge of Rio Iguacu, outskirts of Uniao de Victoria. elevation: 700m. remarks: Common. Wild. Seed.

PI 534674 donor id: Gr. 953. origin: Brazil. collected: November 04, 1985. collector: S.A. Graham. collector id: Gr. 953. other id: Ames 6059. group: Ames. locality: Disturbed banks of small brook and adjacent, soggy pastured areas, 37km W and 16km S of Mucuge in Mun. Boninal near Novo Colina. Wild. Seed.

PI 534675. *Cuphea confertiflora* A. St. Hil. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 927. origin: Brazil. collected: November 11, 1985. collector: S.A. Graham. collector id: Gr. 927. other id: Ames 6053. group: Ames. locality: In campo, fine-grained dark, clay loam, about 5km W of city of Palmeiras, Mun. Palmeiras. remarks: Enlarged tuberous rootstock. Plants up to 1/2m tall. Petals pale pink, without calluses. Inflorescence slight viscous. Abundant, but scattered. Wild. Seed.

PI 534676. *Cuphea crassiflora* S. Graham LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 748. origin: Mexico. collected: September 07, 1981. collector: S.A. Graham. collector id: Gr. 748. other id: Ames 4838. group: Ames. other id: AZ97. locality: 10km SW of Tonila on hwy 54. elevation: 1200m. remarks: Petals purple, erect, white within the tube. Wild. Seed.

PI 534677. *Cuphea denticulata* Kunth LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: 4381. **origin:** Venezuela. **collected:** January 31, 1984. **collector:** P. Fryxell, C. Burandt. **collector id:** 4381. **other id:** Ames 8321. **group:** Ames. **locality:** Roadside, above Rio Claro at summit of Fila las Goteras. **elevation:** 1500m. **remarks:** Common. Shrub, 30cm tall. Flowers pale lavender. Perennial. Wild. Seed.

PI 534678. *Cuphea elliptica* Koehne LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: 79432. **origin:** Mexico. **collected:** November 08, 1979. **collector:** S. Koch et al. **collector id:** 79432. **other id:** Ames 8322. **group:** Ames. **locality:** 5km SE de El Ciruelo. **elevation:** 10m. Perennial. Wild. Seed.

PI 534679. *Cuphea glossostoma* Koehne LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 792. **origin:** Mexico. **collected:** September 13, 1981. **collector:** S.A. Graham. **collector id:** Gr. 792. **other id:** Ames 4829. **group:** Ames. **other id:** AZ133. **locality:** Subtropical scrub vegetation, growing out of hole in limestone rock, Km 111 on Taxco-Ixtapan Rd. **elevation:** 1450m. Wild. Seed.

PI 534680 to 534682. *Cuphea glutinosa* Cham. & Schldl. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534680 **donor id:** Gr. 849. **origin:** Brazil. **collected:** March 05, 1982. **collector:** S.A. Graham. **collector id:** Gr. 849. **other id:** Ames 4922. **group:** Ames. **other id:** AZ172. **locality:** Open, sandy, roadside bank, 2.7km W of Rio Capiroara on the Curitiba-Irati Rd., just E of the 185km marker and 24km E of Vieras. **elevation:** 950m. **remarks:** Upper petals deep purple, lower pale purple. Wild. Seed.

PI 534680 to 534682-continued

- PI 534681 donor id: Gr. 853. origin: Brazil. collected: March 05, 1982. collector: S.A. Graham. collector id: Gr. 853. other id: Ames 4923. group: Ames. other id: AZ175. locality: Open pasture, scattered, 22km W of Ponta Grossa and 11km SW of intersection of Rodovia do Cafe with Uvaia Rd., just S of 21km mark. elevation: 950m. remarks: Petals and calyx medium purple. Wild. Seed.
- PI 534682 donor id: UNKNOWN. origin: United States. collected: May 1972. collector: J. Thieret. other id: Ames 8323. group: Ames. locality: Near Bayou Ile des Cannes, ca. 3.2km NE of Milton. Wild. Seed.

PI 534683 to 534684. *Cuphea hookeriana* Walp. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

- PI 534683 donor id: Gr. 817. origin: Mexico. collected: September 21, 1981. collector: S.A. Graham. collector id: Gr. 817. other id: Ames 4900. group: Ames. other id: AZ151. locality: Oak-pine zone, slopes bordering road, 23km W of San Cristobal on Hwy 190. remarks: Floral tube red. Petals dark red. Wild. Seed.
- PI 534684 donor id: Gr. 822. origin: Mexico. collected: September 21, 1981. collector: S.A. Graham. collector id: Gr. 822. other id: Ames 4901. group: Ames. other id: AZ155. locality: 17km SE of Rincon Chamula on Hwy 195 at bridge. Wild. Seed.

PI 534685 to 534686. *Cuphea hyssopifolia* Kunth LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

- PI 534685 donor id: S.N.. origin: UNKNOWN. collector: S.A. Graham. collector id: S.N.. other id: Ames 6079. group: Ames. Wild. Seed.
- PI 534686 origin: UNKNOWN. other id: Ames 8324. group: Ames. remarks: From Park Seed Co. Perennial. Cultivated. Seed.

PI 534687. *Cuphea inflata* S. Graham LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534687-continued

donor id: Gr. 724. origin: Mexico. collected: September 02, 1981. collector: S.A. Graham. collector id: Gr. 724. other id: Ames 4840. group: Ames. other id: AZ76. locality: Shallow, rocky gravel soil, disturbed openings and rocky slopes, 5km S of Santa Maria del Oro on road to La Laguna. elevation: 1200m. remarks: Upper petals purple, lower petals purple. Stamens white. Wild. Seed.

PI 534688 to 534690. *Cuphea koehneana* Rose LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534688 donor id: Gr. 788. origin: Mexico. collected: September 13, 1981. collector: S.A. Graham. collector id: Gr. 788. other id: Ames 4841. group: Ames. other id: AZ129. locality: Limestone banks, among rocks, 13km N of Taxco on Hwy 95. elevation: 1700m. remarks: Plants 80cm tall. Petals purple-purple black. Common. Wild. Seed.

PI 534689 donor id: Gr. 794. origin: Mexico. collected: September 13, 1981. collector: S.A. Graham. collector id: Gr. 794. other id: Ames 4842. group: Ames. other id: AZ135. locality: Dry limestone hillsides, 2km S of Taxco on Hwy 95. elevation: 1700m. remarks: Calyx mostly whitish-green. Petals all dark purple-black. Abundant. Wild. Seed.

PI 534690 donor id: Gr. 795. origin: Mexico. collected: September 14, 1981. collector: S.A. Graham. collector id: Gr. 795. other id: Ames 4843. group: Ames. other id: AZ136. locality: Dry limestone hillsides, 2km S of Taxco on Hwy 95. elevation: 1700m. remarks: Calyx wine colored. Petals purple-black, light purple above middle. Abundant. Wild. Seed.

PI 534691. *Cuphea laminuligera* Koehne LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 803. origin: Mexico. collected: September 16, 1981. collector: S.A. Graham. collector id: Gr. 803. other id: Ames 4888. group: Ames. other id: AZ142. locality: Limestone hills and roadsides, 11km N of Tamazulapan on hwy 190 and 28km S of Huajuapán. remarks: Petals pale below; mouth of calyx bright yellow within. Wild. Seed.

PI 534692 to 534696. *Cuphea leptopoda* Hemsley LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534692 **donor id:** Gr. 713. **origin:** Mexico. **collected:** August 30, 1981. **collector:** S.A. Graham. **collector id:** Gr. 713. **other id:** Ames 4853. **group:** Ames. **other id:** AZ65. **locality:** Grazed pasture, 2km S of Tequila on road to summit of cerro Tequila. **elevation:** 1250m. **remarks:** Viscid glandular. Petals light purple above, paler below. Wild. Seed.

PI 534693 **donor id:** Gr. 718. **origin:** Mexico. **collected:** September 01, 1981. **collector:** S.A. Graham. **collector id:** Gr. 718. **other id:** Ames 4854. **group:** Ames. **other id:** AZ70. **locality:** Disturbed roadside, edges of openings next to road, 10km E of Jalcocotan on road to Santa Cruz, NW of Tepic. **elevation:** 500m. **remarks:** Plants viscid glandular. Wild. Seed.

PI 534694 **donor id:** Gr. 720. **origin:** Mexico. **collected:** September 02, 1981. **collector:** S.A. Graham. **collector id:** Gr. 720. **other id:** Ames 4855. **group:** Ames. **other id:** AZ72. **locality:** Roadside, dense grass, 22km S of Tepic. **elevation:** 1200m. **remarks:** Plants viscid glandular. Common. Wild. Seed.

PI 534695 **donor id:** Gr. 730. **origin:** Mexico. **collected:** September 04, 1981. **collector:** S.A. Graham. **collector id:** Gr. 730. **other id:** Ames 4856. **group:** Ames. **other id:** AZ82. **locality:** Roadside waste area, steep rocky slopes, 10km N of Casmiro Castillo on Mex 80 S Autlan. **elevation:** 1000m. **remarks:** Leaves and stems scarcely sticky. Inflorescence viscid. Petals medium, purple. Wild. Seed.

PI 534696 **donor id:** Breedlove 26224. **origin:** Mexico. **collector:** Breedlove. **collector id:** Breedlove 26224. **other id:** Ames 8326. **group:** Ames. Perennial. Wild. Seed.

PI 534697 to 534699. *Cuphea llavea* Lex. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534697 **donor id:** Gr. 707. **origin:** Mexico. **collected:** August 23, 1981. **collector:** S.A. Graham. **collector id:** Gr. 707. **other id:** Ames 4848. **group:** Ames. **other id:** AZ61. **locality:** Steep, rocky slopes, western wall, red sandy gravel soils, road cut on Hwy 44, 5km NE of Chapala. **elevation:** 1500m. **remarks:** Stems nonglandular. Petals bright red-orange. Wild. Seed.

PI 534697 to 534699-continued

PI 534698 donor id: Gr. 717. origin: Mexico. collected: September 01, 1981. collector: S.A. Graham. collector id: Gr. 717. other id: Ames 4849. group: Ames. other id: AZ69. locality: 5km E of Jalcocotan on road to Santa Cruz. elevation: 500m. Wild. Seed.

PI 534699 donor id: Gr. 722. origin: Mexico. collected: September 02, 1981. collector: S.A. Graham. collector id: Gr. 722. other id: Ames 4844. group: Ames. other id: AZ74. locality: In woods and along dry roadcuts, 3km S of Santa Maria Del Oro, road to La Laguna. elevation: 1200m. remarks: Petals red. Wild. Seed.

PI 534700. *Cuphea lophostoma* Koehne LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 785. origin: Mexico. collected: September 12, 1981. collector: S.A. Graham. collector id: Gr. 785. other id: Ames 4875. group: Ames. other id: AZ127. locality: 10km S Villa Guerrero on Hwy 55. elevation: 1800m. Wild. Seed.

PI 534701. *Cuphea lutea* Rose LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 806. origin: Mexico. collected: September 18, 1981. collector: S.A. Graham. collector id: Gr. 806. other id: Ames 4809. group: Ames. other id: AZ144. locality: Roadside banks, 6km N of Oaxaca on Hwy 190. elevation: 1550m. remarks: Upper petals purple. Lower petals white. Calyx yellow-green. Inflorescence slightly viscous. Wild. Seed.

PI 534702. *Cuphea melanium* (L.) R. Br. ex Steudel LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: 31877. origin: Dominican Republic. collector: Zanoni. collector id: 31877. other id: Ames 8327. group: Ames. Perennial. Wild. Seed.

PI 534703. *Cuphea melvilla* Lindley LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 908. **origin:** Brazil. **collected:** March 21, 1982. **collector:** S.A. Graham. **collector id:** Gr. 908. **other id:** Ames 4823. **group:** Ames. **other id:** AZ199. **locality:** Marsh margin, saturated soil, leaning on high grass, on BR 255, 6km NE of intersection of SP 255 with road to Pradoptopilis. **remarks:** Plants to 2m tall. Flowers red with yellow-green tip. Wild. Seed.

PI 534704. *Cuphea micropetala* Kunth LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 757. **origin:** Mexico. **collected:** September 08, 1981. **collector:** S.A. Graham. **collector id:** Gr. 757. **other id:** Ames 4825. **group:** Ames. **other id:** AZ104. **locality:** Along irrigation ditch, next to sugar cane field and adjacent flatland, 10km NW of Los Reyes on Jalcona-Los Reyes Rd. **elevation:** 1600m. **remarks:** Plants to 2 1/2m. Leaves scabrous. Clayx red. Wild. Seed.

PI 534705. *Cuphea palustris* Koehne LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 804. **origin:** Mexico. **collected:** September 18, 1981. **collector:** S.A. Graham. **collector id:** Gr. 804. **other id:** Ames 4800. **group:** Ames. **other id:** AZ143. **locality:** 6km N of Oaxaca City on Hwy 190. **elevation:** 1550m. Wild. Seed.

PI 534706. *Cuphea parsonsia* (L.) R. Br. ex Steudel LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Stevens 23628. **origin:** Cuba. **collected:** July 09, 1985. **collector:** W.D. Stevens. **collector id:** Stevens 23628. **other id:** Ames 8328. **group:** Ames. **locality:** Cayo La Rosa, La Habana. **elevation:** 70m. Perennial. Wild. Seed.

PI 534707. *Cuphea paucipetala* S. Graham LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: 4273. **origin:** Mexico. **collected:** October 17, 1985. **collector:** J.L. Reveal, R.M. Harley, C.R. Broome, K.M. Peterson. **collector id:** 4273. **other id:** Ames 4801. **group:** Ames. **other id:** AZ38. **locality:** Along the Milpillas-Atoyoc Rd. via Puerto De Gallo, about 83.7km SW Mexico Hwy 95, 23.8km SW of Carrazal De Bravo, Sierra Madre del Sur. **Wild. Seed.**

PI 534708 to 534714. *Cuphea procumbens* Cav. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534708 **donor id:** Gr. 476. **origin:** Mexico. **collected:** October 19, 1968. **collector:** S.A. Graham. **collector id:** Gr. 476. **other id:** Ames 8329. **group:** Ames. **locality:** 2km N of Mazamitla on Hwy 110 (Jiquilpan-Manzanillo road). **Perennial. Wild. Seed.**

PI 534709 **donor id:** Gr. 479. **origin:** Mexico. **collected:** October 19, 1971. **collector:** S.A. Graham. **collector id:** Gr. 479. **other id:** Ames 4786. **group:** Ames. **other id:** AZ41. **locality:** Weedy moist roadside, 3km S of Mazamitla on Hwy 110. **remarks:** Plants erect. Petals medium purple. **Wild. Seed.**

PI 534710 **donor id:** Gr. 473. **origin:** Mexico. **collected:** October 18, 1971. **collector:** S.A. Graham. **collector id:** Gr. 473. **other id:** Ames 4787. **group:** Ames. **other id:** AZ42. **locality:** Moist grassy field, 12km S of Carapan on road to Uruapan. **elevation:** 1800m. **Wild. Seed.**

PI 534711 **donor id:** Gr. 706. **origin:** Mexico. **collected:** August 26, 1981. **collector:** S.A. Graham. **collector id:** Gr. 706. **other id:** AZ60. **other id:** Ames 4788. **group:** Ames. **locality:** Deep wet sand among grasses next to River, at Km 31, San Miguel-Guanajuato Rd., 7km N of junction with road to Mexico City. **elevation:** 1800m. **remarks:** Slightly sticky pubescent. Petals pale purple. **Wild. Seed.**

PI 534708 to 534714-continued

PI 534712 donor id: Gr. 739. origin: Mexico. collected: September 06, 1981. collector: S.A. Graham. collector id: Gr. 739. other id: Ames 4789. group: Ames. other id: AZ89. locality: Low wet roadside, 10km W of Jiquilpan. elevation: 1500m. remarks: Plants not sticky, or slightly so. Flowers 1-6 per inflorescence, in bloom simultaneously. Petals varying medium rose-purple to nearly white. Wild. Seed.

PI 534713 donor id: Gr. 752. origin: Mexico. collected: September 08, 1981. collector: S.A. Graham. collector id: Gr. 752. other id: Ames 4790. group: Ames. other id: AZ100. locality: Low, wet roadside, much grazed, mixed deciduous tree-low shrub growth, 15km W of Sahuayo. elevation: 1400m. remarks: Petals all medium purple. Wild. Seed.

PI 534714 donor id: Gr. 778. origin: Mexico. collected: September 08, 1981. collector: S.A. Graham. collector id: Gr. 778. other id: Ames 4793. group: Ames. other id: AZ121. locality: Wet ditch, mixed low tree deciduous-subtropical woods, at base of E facing slope, 1 km S of Ixtapan Del Ora on road to Nuevo St. Tomas. elevation: 1800m. remarks: Scattered but common. Wild. Seed.

PI 534715 to 534718. *Cuphea racemosa* (L. f.) Sprengel LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534715 donor id: Gr. 689. origin: Mexico. collected: September 06, 1978. collector: S.A. Graham. collector id: Gr. 689. other id: Ames 4926. group: Ames. other id: AZ43. locality: In 2m deep drainage ditch, deep shade, 0.5km SW of Estanzuela on Coatepec-Las Trancas Rd., and 6km SW of intersection with Hwy 141. elevation: 1108m. remarks: Only few plants seen. Wild. Seed.

PI 534716 donor id: Gr. 831. origin: Mexico. collected: September 24, 1981. collector: S.A. Graham. collector id: Gr. 831. other id: Ames 4928. group: Ames. other id: AZ161. locality: Deep ditch, running water, shaded coffee planation, 3km SW of Estanzuela on Tuzama-Pan-Huatusco Rd. elevation: 1200m. Wild. Seed.

PI 534715 to 534718-continued

PI 534717 donor id: Gr. 897. origin: Brazil. collected: March 17, 1982. collector: S.A. Graham. collector id: Gr. 897. other id: Ames 4929. group: Ames. other id: AZ195. locality: Marsh, standing water among shrubs and tall grasses, 8km S of Formosa on Brasilia-Formosa Rd. remarks: Plants to 1 1/2m, weak stemmed. Leaves pale beneath, dark green above. Inflorescence slightly viscid. Petals pink. Floral tube deep rose. Wild. Seed.

PI 534718 donor id: Gr. 952. origin: Brazil. collected: November 04, 1985. collector: S.A. Graham. collector id: Gr. 952. other id: Ames 6058. group: Ames. locality: 37km W and 16km S of Mucuge in Mun. Boninaal near Novo Colina. elevation: 700m. Wild. Seed.

PI 534719. *Cuphea racemosa* subsp. *hirticaulis* (Koehne) Lourt.
LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: 760. origin: Brazil. collected: April 23, 1981. collector: B.M. Boom, A.M. De Carvalho. collector id: 760. other id: Ames 4927. group: Ames. other id: AZ108. Wild. Seed.

PI 534720. *Cuphea salicifolia* Cham. & Schldl. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: Gr. 827. origin: Mexico. collected: September 23, 1981. collector: S.A. Graham. collector id: Gr. 827. other id: Ames 4930. group: Ames. other id: AZ157. locality: In streams crossing main road in center of La Estanuela, about 10km S of Hwy 140, S of Jalapa. elevation: 1200m. Wild. Seed.

PI 534721. *Cuphea* sp. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534721-continued

donor id: Gr. 810. **origin:** Mexico. **collected:** September 20, 1981. **collector:** S.A. Graham. **collector id:** Gr. 810. **other id:** Ames 4878. **group:** Ames. **other id:** AZ147. **locality:** Low, flat roadside, among grasses, along edge of pond, 2km W of JCT 185 to Acayucan and Hwy 190 at Isthmus of Tehuantepec. **elevation:** 50m. **remarks:** Petals deep rose-pink. Calyx green. Wild. Seed.

PI 534722 to 534725. *Cuphea tolucana* Peyr. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534722 **donor id:** Gr. 475. **origin:** Mexico. **collected:** October 19, 1968. **collector:** S.A. Graham. **collector id:** Gr. 475. **other id:** Ames 4775. **group:** Ames. **other id:** AZ44. **locality:** 0.48km SE of Michoacan-Jalisco border on Jiquilpan-Manzanillo road. Wild. Seed.

PI 534723 **donor id:** Gr. 741. **origin:** Mexico. **collected:** September 06, 1981. **collector:** S.A. Graham. **collector id:** Gr. 741. **other id:** Ames 4781. **group:** Ames. **other id:** AZ90. **locality:** Low, wide grassy roadside, disturbed by grazing, 2km SW of Michoacan-Jalisco border on Hwy 110. **elevation:** 1900m. **remarks:** Common. Wild. Seed.

PI 534724 **donor id:** Gr. 756. **origin:** Mexico. **collected:** September 08, 1981. **collector:** S.A. Graham. **collector id:** Gr. 756. **other id:** Ames 4783. **group:** Ames. **other id:** AZ103. **locality:** Open waste ground, roadside, 18km SW of Jalcana on road to Los Reyes. **elevation:** 1800m. Wild. Seed.

PI 534725 **donor id:** Gr. 763. **origin:** Mexico. **collected:** September 10, 1981. **collector:** S.A. Graham. **collector id:** Gr. 763. **other id:** Ames 4784. **group:** Ames. **other id:** AZ111. **locality:** Moist, disturbed openings, 12km W of Tingambata on Uruapan-Patzcuaro Rd. **elevation:** 2100m. **remarks:** Common. Inflorescence clammy. Wild. Seed.

PI 534726. *Cuphea viscosissima* Jacq. LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

donor id: UNKNOWN. **origin:** United States. **collected:** June 1985. **collector:** Balogh. **other id:** Ames 6069. **group:** Ames. Wild. Seed.

PI 534727 to 534729. *Cuphea wrightii* A. Gray LYTHRACEAE

Donated by: Graham, S.A., Dept. of Biological Sciences, Kent State University, Kent, Ohio, United States. Received July 1988.

PI 534727 **donor id:** Gr. 501. **origin:** Mexico. **collected:** August 26, 1975. **collector:** S.A. Graham. **collector id:** Gr. 501. **other id:** Ames 4767. **group:** Ames. **other id:** AZ50. **locality:** Moist pockets of soil among lava boulders on pedregal outcrops in parking lot of UNAM Olympic Stadium, Mexico D.F. **Wild. Seed.**

PI 534728 **donor id:** Gr. 725. **origin:** Mexico. **collected:** September 02, 1981. **collector:** S.A. Graham. **collector id:** Gr. 725. **other id:** Ames 4768. **group:** Ames. **other id:** AZ77. **locality:** Moist pockets, low rocky waste roadside, 6km W of junction of Hwy 15 and toll road to Puerto Vallarta. **elevation:** 1200m. **Wild. Seed.**

PI 534729 **donor id:** Gr. 732. **origin:** Mexico. **collected:** September 04, 1981. **collector:** S.A. Graham. **collector id:** Gr. 732. **other id:** Ames 4764. **group:** Ames. **other id:** AZ84. **locality:** Wet ditch, along slopes, 13km S of Autlan on Mex. 80. **elevation:** 1000m. **Wild. Seed.**

PI 534730. *Cuphea viscosissima* Jacq. LYTHRACEAE

Donated by: Kurz, D., Missouri Dept. of Conservation, Jefferson City, Missouri, United States. Received July 1988.

origin: United States. **other id:** Ames 7570. **group:** Ames. **Annual. Wild. Seed.**

PI 534731. *Cuphea ignea* A. DC. LYTHRACEAE Cigar flower

Donated by: University of Turku Botanical Garden, Turku, Finland. Received July 1988.

origin: Finland. **other id:** Ames 7656. **group:** Ames. **Perennial. Cultivated. Seed.**

PI 534732. *Cuphea lanceolata* Aiton f. LYTHRACEAE Clammy cuphea

Donated by: University of Turku Botanical Garden, Turku, Finland. Received July 1988.

donor id: 227. **origin:** Finland. **other id:** Ames 7657. **group:** Ames. **remarks:** For lauric acid testing. **Annual. Cultivated. Seed.**

PI 534733. *Cuphea lanceolata* Aiton f. LYTHRACEAE

Donated by: Roath, W.W.; Widrlechner, M.P., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

donor id: 286. **origin:** United States. **origin institute:** W.J. Beal Botanical Garden, Michigan State University, East Lansing, Michigan 48824-1047. **other id:** Ames 8061. **group:** Ames. Annual. Cultivated. Seed.

PI 534734 to 534771. *Cuphea viscosissima* Jacq. LYTHRACEAE

Donated by: Roath, W.W.; Widrlechner, M.P., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

PI 534734 **origin:** United States. **other id:** Ames 7874. **group:** Ames. **locality:** In drainage below NNE facing outcropping, Fontana Quad., SE side of lake in Miami County, Kansas. **latitude:** 38 deg. 25 min. N. **longitude:** 94 deg. 47 min. W. Annual. Wild. Seed.

PI 534735 **origin:** United States. **other id:** Ames 7875. **group:** Ames. **locality:** In weedy ditch, E side of gravel road, Mantey Quad., 5.63km Mound City, Kansas. **latitude:** 38 deg. 05 min. N. **longitude:** 94 deg. 49 min. W. Annual. Wild. Seed.

PI 534736 **origin:** United States. **other id:** Ames 7876. **group:** Ames. **locality:** Limestone outcroppings, SE side of NE arm of lake, Hiattville Quad., Crawford Co. Sp. No. 2, Kansas. **latitude:** 37 deg. 38 min. N. **longitude:** 94 deg. 48 min. W. Annual. Wild. Seed.

PI 534737 **origin:** United States. **other id:** Ames 7877. **group:** Ames. **locality:** Along creek, S end of lake, Hiattville Quad., Crawford Sp. No. 2, Kansas. **latitude:** 38 deg. 38 min. N. **longitude:** 94 deg. 49 min. W. **remarks:** At least 1 plant with possible closed pods. Annual. Wild. Seed.

PI 534738 **origin:** United States. **other id:** Ames 7878. **group:** Ames. **locality:** In weedy creek bank, Grindstone Creek Quad., 20.92km W - 2.41km N Pittsburg, Kansas. **latitude:** 37 deg. 26 min. N. **longitude:** 94 deg. 57 min. W. Annual. Wild. Seed.

PI 534739 **origin:** United States. **other id:** Ames 7879. **group:** Ames. **locality:** Gravelly soil, edge of oak forest, 5.31km E - 0.80km N of Crestline Quad., Kansas. **latitude:** 37 deg. 11 min. N. **longitude:** 94 deg. 38 min. W. Annual. Wild. Seed.

PI 534734 to 534771-continued

- PI 534740 **origin:** United States. **other id:** Ames 7881. **group:** Ames. **locality:** Rocky ditch, eroded roadside, on State line 1.45km S Jasper-Newton Co. line, Joplin West Quad., Kansas. **latitude:** 37 deg. 03 min. N. **longitude:** 94 deg. 37 min. W. Annual. Wild. Seed.
- PI 534741 **origin:** United States. **other id:** Ames 7880. **group:** Ames. **locality:** In rocks on slightly S facing slope, N side of Shoal Creek, Baxter Springs Quad., Kansas. **latitude:** 37 deg. 03 min. N. **longitude:** 94 deg. 38 min. W. Annual. Wild. Seed.
- PI 534742 **origin:** United States. **other id:** Ames 7883. **group:** Ames. **locality:** On disturbed fill, N side of Zora St., 100m W of SWF RR, SW of Webb City, Jopling East Quad., Missouri. **latitude:** 37 deg. 06 min. N. **longitude:** 94 deg. 29 min. W. Annual. Wild. Seed.
- PI 534743 **origin:** United States. **other id:** Ames 7884. **group:** Ames. **locality:** On gravel between W side of road and boat ramp, Ruark Bluff Public Use Area, Crisp Quad., Missouri. **latitude:** 37 deg. 06 min. N. **longitude:** 94 deg. 29 min. W. Annual. Wild. Seed.
- PI 534744 **origin:** United States. **other id:** Ames 7885. **group:** Ames. **locality:** In rocks near boat ramp, Greenfield Public Use Area, Greenfield Quad., Missouri. **latitude:** 37 deg. 27 min. N. **longitude:** 93 deg. 47 min. W. Annual. Wild. Seed.
- PI 534745 **origin:** United States. **other id:** Ames 7886. **group:** Ames. **locality:** On rocky trail thru thin woods, Pleasant Hope Wildlife Area, Pleasant Hope Quad., Missouri. **latitude:** 37 deg. 27 min. N. **longitude:** 93 deg. 18 min. W. Annual. Wild. Seed.
- PI 534746 **origin:** United States. **other id:** Ames 7887. **group:** Ames. **locality:** In clay soil, along road, 2.41km N Seligman, Seligman Quad., Missouri. **latitude:** 36 deg. 33 min. N. **longitude:** 93 deg. 56 min. W. Annual. Wild. Seed.
- PI 534747 **origin:** United States. **other id:** Ames 7888. **group:** Ames. **locality:** In gravel along dry creek, Roaring River SP Campground 1, Eagle Rock Quad., Missouri. **latitude:** 36 deg. 35 min. N. **longitude:** 93 deg. 51 min. W. Annual. Wild. Seed.
- PI 534748 **origin:** United States. **other id:** Ames 7889. **group:** Ames. **locality:** Roadside ditch, 1.6km S Eagle Rock, Eagle Rock Quad., Missouri. **latitude:** 36 deg. 32 min. N. **longitude:** 93 deg. 45 min. W. Annual. Wild. Seed.

PI 534734 to 534771-continued

- PI 534749 **origin:** United States. **other id:** Ames 7890. **group:** Ames. **locality:** Roadside, edge of oak-hickory woods, 1.61km W - 2.74km N of Lampe, Lampe Quad., Missouri. **latitude:** 36 deg. 35 min. N. **longitude:** 93 deg. 27 min. W. **Annual.** **Wild.** **Seed.**
- PI 534750 **origin:** United States. **other id:** Ames 7891. **group:** Ames. **locality:** In moist ditch near pond, Connie Baker Rd., NW of Mtn. Home, Mtn. Home West Quad., Arkansas. **latitude:** 36 deg. 22 min. N. **longitude:** 92 deg. 25 min. W. **remarks:** One dilute color (blue), mutant. **Annual.** **Wild.** **Seed.**
- PI 534751 **origin:** United States. **other id:** Ames 7892. **group:** Ames. **locality:** In moist ditch near pond, Connie Baker Rd., NW of Mtn. Home, Mtn. Home West Quad., Arkansas. **latitude:** 36 deg. 22 min. N. **longitude:** 92 deg. 25 min. W. **Annual.** **Wild.** **Seed.**
- PI 534752 **origin:** United States. **other id:** Ames 7893. **group:** Ames. **locality:** In gravel along creek, 2.41km S Bakersfield, Bakersfield Quad., Arkansas. **latitude:** 36 deg. 30 min. N. **longitude:** 92 deg. 08 min. W. **Annual.** **Wild.** **Seed.**
- PI 534753 **origin:** United States. **other id:** Ames 7895. **group:** Ames. **locality:** In gravel along road, Cardinal Acres near Jacks Fork River, Pine Crest Quad., Missouri. **latitude:** 37 deg. 03 min. N. **longitude:** 91 deg. 40 min. W. **Annual.** **Wild.** **Seed.**
- PI 534754 **origin:** United States. **other id:** Ames 7896. **group:** Ames. **locality:** Sand bar, near Blue Spring, Jacks Fork River, Pine Crest Quad., Missouri. **latitude:** 37 deg. 03 min. N. **longitude:** 91 deg. 38 min. W. **Annual.** **Wild.** **Seed.**
- PI 534755 **origin:** United States. **other id:** Ames 7899. **group:** Ames. **locality:** On gravel along Current River near Round Spring, Round Spring Quad., Missouri. **latitude:** 37 deg. 17 min. N. **longitude:** 91 deg. 24 min. W. **Annual.** **Wild.** **Seed.**
- PI 534756 **origin:** United States. **other id:** Ames 7900. **group:** Ames. **locality:** In gravel on bridge abutments, Co. Rd. M @ Walker Branch, Johnson Shut-Ins Quad., Missouri. **latitude:** 37 deg. 31 min. N. **longitude:** 90 deg. 52 min. W. **Annual.** **Wild.** **Seed.**

PI 534734 to 534771-continued

- PI 534757 **origin:** United States. **other id:** Ames 7901. **group:** Ames. **locality:** In rock on N side of creek, 4.02km W of Middle Creek Campground, Des Arc NE Quad., Missouri. **latitude:** 37 deg. 27 min. N. **longitude:** 90 deg. 35 min. W. Annual. Wild. Seed.
- PI 534758 **origin:** United States. **other id:** Ames 7902. **group:** Ames. **locality:** Moist silt loam, thick grass, 1.61km E - 2.41km N Wine Hill near Rockcastle Creek, Welge Quad., Illinois. **latitude:** 37 deg. 58 min. N. **longitude:** 89 deg. 40 min. W. Annual. Wild. Seed.
- PI 534759 **origin:** United States. **other id:** Ames 7903. **group:** Ames. **locality:** Mowed road ditch, 2.41km S Swanwick, Coulterville Quad., Illinois. **latitude:** 38 deg. 09 min. N. **longitude:** 89 deg. 32 min. W. Annual. Wild. Seed.
- PI 534760 **origin:** United States. **other id:** Ames 7905. **group:** Ames. **locality:** Clay and rocky soil, head of Blackfork Trail near Heron Lake boat ramp, Pyramid SP, Pickneyville Quad, Illinois. **latitude:** 38 deg. 01 min. N. **longitude:** 89 deg. 26 min. W. Annual. Wild. Seed.
- PI 534761 **origin:** United States. **other id:** Ames 7906. **group:** Ames. **locality:** Dry road ditch, edge thin oak woods, 2.09km NE Simpson, Glendale Quad., Illinois. **latitude:** 37 deg. 29 min. N. **longitude:** 88 deg. 44 min. W. Annual. Wild. Seed.
- PI 534762 **origin:** United States. **other id:** Ames 7907. **group:** Ames. **locality:** Dry road ditch on hilltop, 0.80km NNE Herod, Heron Quad., Illinois. **latitude:** 37 deg. 35 min. N. **longitude:** 88 deg. 26 min. W. Annual. Wild. Seed.
- PI 534763 **origin:** United States. **other id:** Ames 7908. **group:** Ames. **locality:** Alluvial clay soil along railroad, 1.61km SW of Texas City, Eldorado Quad., Illinois. **latitude:** 37 deg. 52 min. N. **longitude:** 88 deg. 24 min. W. Annual. Wild. Seed.
- PI 534764 **origin:** United States. **other id:** Ames 7910. **group:** Ames. **locality:** Edge of disturbed prairie, 2.09km NE Schrodts Stn., Carmel Quad., Illinois. **latitude:** 38 deg. 24 min. N. **longitude:** 87 deg. 48 min. W. Annual. Wild. Seed.
- PI 534765 **origin:** United States. **other id:** Ames 7911. **group:** Ames. **locality:** Wide grassy trail on border between plantation and natural woods NW of Nature Barn, Beall Woods State Park, Keensburg Quad., Illinois. **latitude:** 38 deg. 21 min. N. **longitude:** 87 deg. 50 min. W. Annual. Wild. Seed.

PI 534734 to 534771-continued

- PI 534766 **origin:** United States. **other id:** Ames 7913. **group:** Ames. **locality:** Moist ditch, 2.74km SW Xenia, Orchardville Quad., Illinois. **latitude:** 38 deg. 37 min. N. **longitude:** 88 deg. 40 min. W. Annual. Wild. Seed.
- PI 534767 **origin:** United States. **other id:** Ames 7914. **group:** Ames. **locality:** Moist road ditch, 5.31km WNW Coffeen, Coffeen Quad, Illinois. **latitude:** 39 deg. 06 min. N. **longitude:** 89 deg. 27 min. W. Annual. Wild. Seed.
- PI 534768 **origin:** United States. **other id:** Ames 7915. **group:** Ames. **locality:** Sandy and rocky moist road ditch, 1.61km S - 4.99km W Kampsville, Pleasant Dale Valley Quad., Illinois. **latitude:** 39 deg. 17 min. N. **longitude:** 90 deg. 40 min. W. Annual. Wild. Seed.
- PI 534769 **origin:** United States. **other id:** Ames 7916. **group:** Ames. **locality:** Roadside ditch, base Perrins Ledge, edge of mixed hardwood woods, 4.34km N Kampsville, Kampsville Quad., Illinois. **latitude:** 39 deg. 17 min. N. **longitude:** 90 deg. 40 min. W. Annual. Wild. Seed.
- PI 534770 **origin:** United States. **other id:** Ames 7917. **group:** Ames. **locality:** Shaded weedy ditchy, 2.90km S Nebo, Pleasant Hill Quad., Illinois. **latitude:** 39 deg. 25 min. N. **longitude:** 90 deg. 47 min. W. Annual. Wild. Seed.
- PI 534771 **origin:** United States. **other id:** Ames 7918. **group:** Ames. **locality:** Pasture, edge of rocky wooded slope W of farm bldgs., 1.61km W Floris, Co. Rd. J15 at Lick Creek on old Hill Cultivation Exp. Farm, Floris Quad., Iowa. **latitude:** 40 deg. 52 min. N. **longitude:** 92 deg. 21 min. W. Annual. Wild. Seed.

PI 534772. *Cuphea ignea* A. DC. LYTHRACEAE

Donated by: Widrlechner, M.P., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States; and Northrup King Seeds, P.O. Box 959, Minneapolis, Minnesota, United States. Received July 1988.

origin: United States. **origin institute:** Northrup King Seeds, P.O. Box 959, Minneapolis, Minnesota. **other id:** Ames 8084. **group:** Ames. Cultivated. Seed.

PI 534773. *Cuphea ignea* A. DC. LYTHRACEAE

Donated by: Widrlechner, M.P., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States; and Thompson & Morgan, London Road, Ipswich, England IP2 OBA, United Kingdom. Received July 1988.

origin: United Kingdom. **origin institute:** Thompson & Morgan, London Road, England. **other id:** Ames 8086.
group: Ames. Perennial. Cultivated. Seed.

PI 534774. *Cuphea llavea* Lex. LYTHRACEAE

Donated by: Widrlechner, M.P., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States; and Thompson & Morgan, London Road, Ipswich, England IP2 OBA, United Kingdom. Received July 1988.

origin: United Kingdom. **origin institute:** Thompson & Morgan, London Road, England. **other id:** Ames 8085.
group: Ames. Perennial. Cultivated. Seed.

PI 534775 to 534776. *Cuphea wrightii* A. Gray LYTHRACEAE

Donated by: Knapp, S.J., Dept. of Crop Science, Oregon State University, Corvallis, Oregon, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

PI 534775 **donor id:** WR017. **origin:** United States. **other id:** Ames 8093. **group:** Ames. Annual. Wild. Seed.

PI 534776 **donor id:** WR019. **origin:** United States. **other id:** Ames 8094. **group:** Ames. Annual. Wild. Seed.

PI 534777 to 534779. *Cuphea aperta* Koehne LYTHRACEAE

Donated by: Campbell, T.A., Germplasm Quality & Enhancement Lab., USDA-ARS, Beltsville Agricultural Research Ctr., Beltsville, Maryland, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

PI 534777 **donor id:** GB 222. **origin:** United States. **other id:** Ames 8115. **group:** Ames. Annual. Wild. Seed.

PI 534778 **donor id:** GB 222 RE. **origin:** United States. **other id:** Ames 8116. **group:** Ames. Annual. Wild. Seed.

PI 534779 **donor id:** GB 222 RE2. **origin:** United States. **other id:** Ames 8117. **group:** Ames. Annual. Wild. Seed.

PI 534780 to 534783. *Cuphea calophylla* Cham. & Schldl. LYTHRACEAE

Donated by: Campbell, T.A., Germplasm Quality & Enhancement Lab., USDA-ARS, Beltsville Agricultural Research Ctr., Beltsville, Maryland, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

PI 534780 donor id: GB 850. origin: United States. other id: Ames 8118. group: Ames. Annual. Wild. Seed.

PI 534781 donor id: GB 847. origin: United States. other id: Ames 8119. group: Ames. Annual. Wild. Seed.

PI 534782 donor id: GB 850 RE2. origin: United States. other id: Ames 8120. group: Ames. Annual. Wild. Seed.

PI 534783 donor id: GB 859. origin: United States. other id: Ames 8121. group: Ames. Annual. Wild. Seed.

PI 534784. *Cuphea carthagenensis* (Jacq.) J. F. Macbr. LYTHRACEAE

Donated by: Campbell, T.A., Germplasm Quality & Enhancement Lab., USDA-ARS, Beltsville Agricultural Research Ctr., Beltsville, Maryland, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

donor id: G-51. origin: United States. other id: Ames 8122. group: Ames. Annual. Wild. Seed.

PI 534785. *Cuphea* hybrid LYTHRACEAE

Donated by: Campbell, T.A., Germplasm Quality & Enhancement Lab., USDA-ARS, Beltsville Agricultural Research Ctr., Beltsville, Maryland, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

origin: United States. pedigree: Procumbens/lanceolata. Natural occurring hybrid from Jacksonville. other id: Ames 8124. group: Ames. Annual. Wild. Seed.

PI 534786. *Cuphea paucipetala* S. Graham LYTHRACEAE

Donated by: Hirsinger, F., Hinkle Corp., Fed. Rep. of Germany; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

origin: United States. other id: Ames 8123. group: Ames. Annual. Wild. Seed.

PI 534787 to 534788. *Cuphea procumbens* Cav. LYTHRACEAE

Donated by: Campbell, T.A., Germplasm Quality & Enhancement Lab., USDA-ARS, Beltsville Agricultural Research Ctr., Beltsville, Maryland, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

PI 534787 **origin:** United States. **other id:** Ames 8125. **group:** Ames. **remarks:** Non-sticky. Annual. Wild. Seed.

PI 534788 **origin:** United States. **other id:** Ames 8126. **group:** Ames. Annual. Wild. Seed.

PI 534789 to 534791. *Cuphea* sp. LYTHRACEAE

Donated by: Campbell, T.A., Germplasm Quality & Enhancement Lab., USDA-ARS, Beltsville Agricultural Research Ctr., Beltsville, Maryland, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

PI 534789 **donor id:** GM 7920570. **origin:** United States. **other id:** Ames 8127. **group:** Ames. Annual. Wild. Seed.

PI 534790 **donor id:** GB 868. **origin:** United States. **other id:** Ames 8128. **group:** Ames. Annual. Wild. Seed.

PI 534791 **donor id:** 20507 RE2. **origin:** United States. **other id:** Ames 8129. **group:** Ames. Annual. Wild. Seed.

PI 534792 to 534813. *Cuphea tolucana* Peyr. LYTHRACEAE

Donated by: Campbell, T.A., Germplasm Quality & Enhancement Lab., USDA-ARS, Beltsville Agricultural Research Ctr., Beltsville, Maryland, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

PI 534792 **origin:** United States. **other id:** Ames 8132. **group:** Ames. Annual. Wild. Seed.

PI 534793 **origin:** United States. **other id:** Ames 8133. **group:** Ames. Annual. Wild. Seed.

PI 534794 **origin:** United States. **other id:** Ames 8134. **group:** Ames. Annual. Wild. Seed.

PI 534795 **donor id:** 238. **origin:** United States. **other id:** Ames 8135. **group:** Ames. Annual. Wild. Seed.

PI 534792 to 534813-continued

- PI 534796 donor id: GM 352. origin: United States. other id: Ames 8136. group: Ames. Annual. Wild. Seed.
- PI 534797 donor id: GM 352 RE2. origin: United States. other id: Ames 8137. group: Ames. Annual. Wild. Seed.
- PI 534798 donor id: GM 389. origin: United States. other id: Ames 8138. group: Ames. Annual. Wild. Seed.
- PI 534799 donor id: GM 735. origin: United States. other id: Ames 8139. group: Ames. Annual. Wild. Seed.
- PI 534800 donor id: GM 735 RE2. origin: United States. other id: Ames 8140. group: Ames. Annual. Wild. Seed.
- PI 534801 donor id: 741. origin: United States. other id: Ames 8141. group: Ames. Annual. Wild. Seed.
- PI 534802 donor id: 741 RE2. origin: United States. other id: Ames 8142. group: Ames. Annual. Wild. Seed.
- PI 534803 donor id: GM 749RE. origin: United States. other id: Ames 8143. group: Ames. Annual. Wild. Seed.
- PI 534804 donor id: GM 756 RE2. origin: United States. other id: Ames 8145. group: Ames. Annual. Wild. Seed.
- PI 534805 donor id: GM 756 RE3. origin: United States. other id: Ames 8146. group: Ames. Annual. Wild. Seed.
- PI 534806 donor id: GM 763. origin: United States. other id: Ames 8147. group: Ames. Annual. Wild. Seed.
- PI 534807 donor id: GM 763 RE2. origin: United States. other id: Ames 8148. group: Ames. Annual. Wild. Seed.
- PI 534808 donor id: GM 763 RE. origin: United States. other id: Ames 8149. group: Ames. Annual. Wild. Seed.
- PI 534809 donor id: 777 RE2. origin: United States. other id: Ames 8151. group: Ames. Annual. Wild. Seed.
- PI 534810 origin: United States. other id: Ames 8152. group: Ames. Annual. Wild. Seed.
- PI 534811 donor id: AZA0262. origin: United States. other id: Ames 8153. group: Ames. Annual. Wild. Seed.
- PI 534812 donor id: TL-4. origin: United States. other id: Ames 8154. group: Ames. Annual. Wild. Seed.

PI 534792 to 534813-continued

PI 534813 origin: United States. other id: Ames 8155. group: Ames. Annual. Wild. Seed.

PI 534814 to 534817. *Cuphea wrightii* A. Gray LYTHRACEAE

Donated by: Campbell, T.A., Germplasm Quality & Enhancement Lab., USDA-ARS, Beltsville Agricultural Research Ctr., Beltsville, Maryland, United States; and Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

PI 534814 origin: United States. other id: Ames 8100. group: Ames. Annual. Wild. Seed.

PI 534815 origin: United States. other id: Ames 8101. group: Ames. Annual. Wild. Seed.

PI 534816 donor id: GM 732 RE. origin: United States. other id: Ames 8106. group: Ames. Annual. Wild. Seed.

PI 534817 donor id: GM 732. origin: United States. other id: Ames 8107. group: Ames. Annual. Wild. Seed.

PI 534818 to 534824. *Cuphea wrightii* A. Gray LYTHRACEAE

Donated by: Knapp, S.J., Plant Science Dept., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

PI 534818 donor id: WR 030. origin: United States. other id: Ames 8156. group: Ames. Annual. Wild. Seed.

PI 534819 donor id: WR 031. origin: United States. other id: Ames 8157. group: Ames. Annual. Wild. Seed.

PI 534820 donor id: WR 033. origin: United States. other id: Ames 8158. group: Ames. Annual. Wild. Seed.

PI 534821 donor id: WR 039. origin: United States. other id: Ames 8159. group: Ames. Annual. Wild. Seed.

PI 534822 donor id: WR 042. origin: United States. other id: Ames 8160. group: Ames. Annual. Wild. Seed.

PI 534823 donor id: WR 043. origin: United States. other id: Ames 8161. group: Ames. Annual. Wild. Seed.

PI 534824 donor id: WR 028. origin: United States. other id: Ames 8162. group: Ames. Annual. Wild. Seed.

PI 534825. *Cuphea* sp. LYTHRACEAE

Donated by: Hudson, J.L., P.O. Box 1058, Redwood City, California, United States; and Widrlechner, M.P., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States. Received July 1988.

origin: United States. **cultivar:** FIREFLY. **local name:** Cigar flower. **other id:** Ames 8278. **group:** Ames. **remarks:** Sow on soil surface 70 deg. Cigar flower. Cultivar. Seed.

PI 534826. *Cuphea ignea* A. DC. LYTHRACEAE

Donated by: Roath, W.W., USDA-ARS, Regional Plant Introduction Station, Iowa State University, Ames, Iowa, United States; and Kleiman, R., USDA-ARS Research Station, 1815 N. University Street, Peoria, Illinois, United States. Received July 1988.

origin: United States. **other id:** Ames 8347. **group:** Ames. **remarks:** Originally donated by Louis van Soest, Netherlands. Perennial. Wild. Seed.

PI 534827. *Cuphea pinetorum* Benth. LYTHRACEAE

Donated by: Thompson, A.E., USDA-ARS, U.S. Water Conservation Laboratory, Phoenix, Arizona, United States. Received April 1988.

origin: United States. **other id:** Ames 8373. **group:** Ames. Perennial. Wild. Seed.

PI 534828 to 534831. *Cuphea viscosissima* Jacq. LYTHRACEAE

Donated by: van Soest, L., Netherlands; and Kleiman, R., USDA-ARS Research Station, 1815 N. University Street, Peoria, Illinois, United States. Received July 1988.

PI 534828 **donor id:** 879502. **origin:** Netherlands. **other id:** Ames 8304. **group:** Ames. Annual. Wild. Seed.

PI 534829 **donor id:** 879551. **origin:** Netherlands. **other id:** Ames 8305. **group:** Ames. Annual. Wild. Seed.

PI 534830 **donor id:** 879758. **origin:** Netherlands. **other id:** Ames 8306. **group:** Ames. Annual. Wild. Seed.

PI 534831 **donor id:** 879460. **origin:** Netherlands. **other id:** Ames 8307. **group:** Ames. Annual. Wild. Seed.

PI 534832. *Cuphea llavea* Lex. LYTHRACEAE

Donated by: van Soest, L., Netherlands; and Kleiman, R., USDA-ARS Research Station, Peoria, Illinois, United States. Received July 1988.

donor id: 2336. origin: Hungary. origin institute: Res. Institute of Ecology and Botany, Hungarian Academy of Sciences, Botanical Garden, Vacratot. other id: Ames 8366. group: Ames. Perennial. Cultivated. Seed.

PI 534833. *Cuphea viscosissima* Jacq. LYTHRACEAE

Donated by: van Soest, L., Netherlands; and Kleiman, R., USDA-ARS Research Station, Peoria, Illinois, United States. Received July 1988.

donor id: 2337. origin: Hungary. origin institute: Res. Institute of Ecology and Botany, Hungarian Academy of Sciences, Botanical Garden, Vacratot. other id: Ames 8367. group: Ames. Perennial. Cultivated. Seed.

PI 534834 to 534835. *Cuphea hookeriana* Walp. LYTHRACEAE

Donated by: Kleiman, R., Northern Regional Research Center, USDA-ARS, 1815 N. University Street, Peoria, Illinois, United States. Received July 1988.

PI 534834 donor id: NU 42430. origin: UNKNOWN. other id: Ames 4903. group: Ames. other id: AZ 306. Wild. Seed.

PI 534835 origin: UNKNOWN. other id: Ames 4908. group: Ames. other id: AZ 24. Cultivated. Seed.

PI 534836. *Cuphea ignea* A. DC. LYTHRACEAE

Donated by: Robbelen, G., Institute of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep. of. Received July 1988.

donor id: NU 40829. origin: UNKNOWN. other id: Ames 4865. group: Ames. other id: AZ 307. Wild. Seed.

PI 534837. *Cuphea llavea* Lex. LYTHRACEAE

Donated by: Kleiman, R., Northern Regional Research Center, USDA-ARS, 1815 N. University Street, Peoria, Illinois, United States. Received July 1988.

PI 534837-continued

donor id: NU 42405. origin: UNKNOWN. other id: Ames
4851. group: Ames. other id: AZ 309. Wild. Seed.

PI 534838. *Cuphea aperta* Koehne LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding,
University of Gottingen, Germany, Federal Rep of; and Hirsinger, F.,
Oregon State University, Corvallis, Oregon, United States. Received
July 1988.

donor id: G 58. origin: UNKNOWN. other id: Ames 4932.
group: Ames. other id: AZ 246. Cultivated. Seed.

PI 534839 to 534840. *Cuphea carthagenensis* (Jacq.) J. F. Macbr.
LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding,
University of Gottingen, Germany, Federal Rep of; and Hirsinger, F.,
Oregon State University, Corvallis, Oregon, United States. Received
July 1988.

PI 534839 donor id: G 51. origin: UNKNOWN. other id: Ames 4940.
group: Ames. other id: AZ 244. Cultivated. Seed.

PI 534840 donor id: G 59. origin: UNKNOWN. other id: Ames 4941.
group: Ames. other id: AZ 245. Cultivated. Seed.

PI 534841. *Cuphea glossostoma* Koehne LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding,
University of Gottingen, Germany, Federal Rep of; and Hirsinger, F.,
Oregon State University, Corvallis, Oregon, United States. Received
July 1988.

origin: UNKNOWN. other id: Ames 4839. group: Ames.
other id: AZ 312. Wild. Seed.

PI 534842. *Cuphea glutinosa* Cham. & Schldl. LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding,
University of Gottingen, Germany, Federal Rep of; and Hirsinger, F.,
Oregon State University, Corvallis, Oregon, United States. Received
July 1988.

donor id: G 60. origin: UNKNOWN. other id: Ames 4914.
group: Ames. other id: AZ 247. Wild. Seed.

PI 534843. *Cuphea ignea* A. DC. LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep. of; and Hirsinger, F., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

donor id: G 43. origin: UNKNOWN. other id: Ames 4864.
group: Ames. other id: AZ 249. Wild. Seed.

PI 534844. *Cuphea laminuligera* Koehne LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep. of; and Hirsinger, F., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

origin: UNKNOWN. other id: Ames 4889. group: Ames.
other id: AZ 265. Wild. Seed.

PI 534845. *Cuphea hookeriana* Walp. LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep. of; and Hirsinger, F., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

donor id: G 54. origin: UNKNOWN. other id: Ames 4902.
group: Ames. other id: AZ 251. Wild. Seed.

PI 534846. *Cuphea* hybrid LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep. of; and Hirsinger, F., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

origin: UNKNOWN. pedigree: *Cuphea wrightii* x *C. tolucana*. other id: Ames 4762. group: Ames. other id: AZ 260. remarks: 1983 field increase. Cultivated. Seed.

PI 534847 to 534871. *Cuphea lanceolata* Aiton f. LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep. of; and Hirsinger, F., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

PI 534847 to 534871-continued

PI 534847 donor id: G 1. origin: UNKNOWN. other id: Ames 4866.
group: Ames. other id: AZ 207. Wild. Seed.

PI 534848 donor id: G 4. origin: UNKNOWN. other id: Ames 4868.
group: Ames. other id: AZ 209. Wild. Seed.

PI 534849 donor id: G 5. origin: UNKNOWN. other id: Ames 4869.
group: Ames. other id: AZ 210. Wild. Seed.

PI 534850 donor id: G 19. origin: UNKNOWN. other id: Ames 4870.
group: Ames. other id: AZ 211. Wild. Seed.

PI 534851 donor id: G 20. origin: UNKNOWN. other id: Ames 4871.
group: Ames. other id: AZ 212. Wild. Seed.

PI 534852 donor id: G 21. origin: UNKNOWN. other id: Ames 4880.
group: Ames. other id: AZ 213. Wild. Seed.

PI 534853 donor id: G 23. origin: UNKNOWN. other id: Ames 4881.
group: Ames. other id: AZ 214. Wild. Seed.

PI 534854 donor id: G 24. origin: UNKNOWN. other id: Ames 4882.
group: Ames. other id: AZ 215. Wild. Seed.

PI 534855 donor id: G 25. origin: UNKNOWN. other id: Ames 4883.
group: Ames. other id: AZ 216. Wild. Seed.

PI 534856 donor id: G 26. origin: UNKNOWN. other id: Ames 4884.
group: Ames. other id: AZ 217. Wild. Seed.

PI 534857 donor id: G 27. origin: UNKNOWN. other id: Ames 4885.
group: Ames. other id: AZ 218. Wild. Seed.

PI 534858 donor id: G 31. origin: UNKNOWN. other id: Ames 4886.
group: Ames. other id: AZ 219. Wild. Seed.

PI 534859 donor id: G 32. origin: UNKNOWN. other id: Ames 4887.
group: Ames. other id: AZ 220. Wild. Seed.

PI 534860 donor id: G 35. origin: UNKNOWN. other id: Ames 4803.
group: Ames. other id: AZ 221. Wild. Seed.

PI 534861 donor id: G 36. origin: UNKNOWN. other id: Ames 4804.
group: Ames. other id: AZ 222. Wild. Seed.

PI 534862 donor id: G 38. origin: UNKNOWN. other id: Ames 4805.
group: Ames. other id: AZ 223. Wild. Seed.

PI 534863 donor id: G 39. origin: UNKNOWN. other id: Ames 4806.
group: Ames. other id: AZ 224. Wild. Seed.

PI 534847 to 534871-continued

- PI 534864 donor id: G 40. origin: UNKNOWN. other id: Ames 4807.
group: Ames. other id: AZ 225. Wild. Seed.
- PI 534865 donor id: G 42. origin: UNKNOWN. other id: Ames 4808.
group: Ames. other id: AZ 226. Wild. Seed.
- PI 534866 donor id: G 44. origin: UNKNOWN. other id: Ames 4813.
group: Ames. other id: AZ 227. Wild. Seed.
- PI 534867 donor id: G 45. origin: UNKNOWN. other id: Ames 4814.
group: Ames. other id: AZ 228. Wild. Seed.
- PI 534868 donor id: G 47. origin: UNKNOWN. other id: Ames 4815.
group: Ames. other id: AZ 229. Wild. Seed.
- PI 534869 donor id: G 48. origin: UNKNOWN. other id: Ames 4816.
group: Ames. other id: AZ 230. Wild. Seed.
- PI 534870 donor id: G 50. origin: UNKNOWN. other id: Ames 4817.
group: Ames. other id: AZ 231. Wild. Seed.
- PI 534871 origin: UNKNOWN. other id: Ames 4819. group: Ames.
other id: AZ 252. Wild. Seed.

PI 534872. *Cuphea leptopoda* Hemsley LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding,
University of Gottingen, Germany, Federal Rep. of; and Hirsinger,
F., Oregon State University, Corvallis, Oregon, United States.
Received July 1988.

origin: UNKNOWN. other id: Ames 4858. group: Ames.
other id: AZ 264. Wild. Seed.

PI 534873. *Cuphea lutea* Rose LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding,
University of Gottingen, Germany, Federal Rep of; and Hirsinger, F.,
University of Oregon, Corvallis, Oregon, United States. Received
July 1988.

origin: UNKNOWN. other id: Ames 4810. group: Ames.
other id: AZ 313. Wild. Seed.

PI 534874. *Cuphea micropetala* Kunth LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep of; and Hirsinger, F., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

donor id: G 14. origin: UNKNOWN. collector: Willi, Lorey. other id: Ames 4826. group: Ames. other id: AZ 257. Wild. Seed.

PI 534875 to 534877. *Cuphea paucipetala* S. Graham LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep of; and Hirsinger, F., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

PI 534875 origin: UNKNOWN. other id: Ames 4872. group: Ames. other id: AZ 253. Wild. Seed.

PI 534876 origin: UNKNOWN. other id: Ames 4873. group: Ames. other id: AZ 259. Wild. Seed.

PI 534877 origin: UNKNOWN. other id: Ames 4874. group: Ames. other id: AZ 314. Wild. Seed.

PI 534878 to 534885. *Cuphea procumbens* Cav. LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding, University of Gottingen, Germany, Federal Rep of; and Hirsinger, F., Oregon State University, Corvallis, Oregon, United States. Received July 1988.

PI 534878 donor id: G 6. origin: UNKNOWN. other id: Ames 4794. group: Ames. other id: AZ 233. Wild. Seed.

PI 534879 donor id: G 12. origin: UNKNOWN. other id: Ames 4795. group: Ames. other id: AZ 236. Wild. Seed.

PI 534880 donor id: G 30. origin: UNKNOWN. other id: Ames 4797. group: Ames. other id: AZ 238. Wild. Seed.

PI 534881 donor id: G 34. origin: UNKNOWN. other id: Ames 4798. group: Ames. other id: AZ 240. Wild. Seed.

PI 534882 donor id: G 37. origin: UNKNOWN. other id: Ames 4799. group: Ames. other id: AZ 241. Wild. Seed.

PI 534883 donor id: G 41. origin: UNKNOWN. other id: Ames 4770. group: Ames. other id: AZ 242. Wild. Seed.

PI 534878 to 534885-continued

PI 534884 origin: UNKNOWN. other id: Ames 4771. group: Ames.
other id: AZ 263. remarks: Donated while at Oregon State
University, Corvallis. Wild. Seed.

PI 534885 origin: UNKNOWN. other id: Ames 5912. group: Ames.
other id: AZ 263-2. remarks: Donated while at Oregon
State University, Corvallis. Wild. Seed.

PI 534886 to 534887. *Cuphea tolucana* Peyr. LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding,
University of Gottingen, Germany, Federal Rep of; and Hirsinger, F.,
Oregon State University, Corvallis, Oregon, United States. Received
July 1988.

PI 534886 origin: UNKNOWN. other id: Ames 4773. group: Ames.
other id: AZ 262. Wild. Seed.

PI 534887 origin: UNKNOWN. other id: Ames 4774. group: Ames.
other id: AZ 315. remarks: Same as TK non-sticky mutant
selected in 1983 from EM.S. mutation experiments. Wild.
Seed.

PI 534888 to 534891. *Cuphea wrightii* A. Gray LYTHRACEAE

Donated by: Robbelen, G., Inst. of Agronomy and Plant Breeding,
University of Gottingen, Germany, Federal Rep of; and Hirsinger, F.,
Oregon State University, Corvallis, Oregon, United States. Received
July 1988.

PI 534888 donor id: G 62. origin: UNKNOWN. other id: Ames 4769.
group: Ames. other id: AZ 243. Wild. Seed.

PI 534889 origin: UNKNOWN. other id: Ames 4760. group: Ames.
other id: AZ 261. Wild. Seed.

PI 534890 origin: UNKNOWN. other id: Ames 4761. group: Ames.
other id: AZ 305. Wild. Seed.

PI 534891 origin: UNKNOWN. other id: Ames 4766. group: Ames.
other id: AZ 255. Wild. Seed.

PI 534892. *Cuphea angustifolia* Jacq. ex Koehne LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

PI 534892-continued

donor id: AZ 5. origin: Mexico. collected: October
1979. collector: Ella. other id: Ames 4893. group:
Ames. Wild. Seed.

PI 534893. *Cuphea aperta* Koehne LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 6. origin: Brazil. collector: R.M. Klein.
collector id: C 58. other id: Ames 4931. group: Ames.
Wild. Seed.

PI 534894. *Cuphea glutinosa* Cham. & Schldl. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 15. origin: United States. collector: T.
Thieret. other id: Ames 4921. group: Ames. Wild.
Seed.

PI 534895 to 534897. *Cuphea hookeriana* Walp. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

PI 534895 donor id: AZ 21. origin: Mexico. collector: Greenwood
and Suarez. other id: Ames 4909. group: Ames. Wild.
Seed.

PI 534896 donor id: AZ 22. origin: Mexico. collector: Greenwood
and Suarez. other id: Ames 4911. group: Ames. Wild.
Seed.

PI 534897 donor id: AZ 23. origin: Mexico. collector: Anderson
and Laskowski. collector id: 3732. other id: Ames 4912.
group: Ames. Wild. Seed.

PI 534898. *Cuphea hyssopifolia* Kunth LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

PI 534898-continued

donor id: AZ 56. origin: UNKNOWN. origin institute:
Park Seed Company. other id: Ames 4915. group: Ames.
Cultivated. Seed.

PI 534899. *Cuphea ignea* A. DC. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 57. origin: UNKNOWN. origin institute:
Park Seed Company. other id: Ames 4862. group: Ames.
Cultivated. Seed.

PI 534900. *Cuphea laminuligera* Koehne LYTHRACEAE

Donated by: Thompson, A.E., U. S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 371. origin: UNKNOWN. other id: Ames 4890.
group: Ames. Wild. Seed.

PI 534901. *Cuphea llavea* Lex. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 03. origin: UNKNOWN. collector: Johnes.
collector id: 8004. other id: Ames 4847. group: Ames.
remarks: Probable increase from B 51839. Wild. Seed.

PI 534902 to 534903. *Cuphea lutea* Rose LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

PI 534902 donor id: AZ 370. origin: UNKNOWN. other id: Ames 4811.
group: Ames. Wild. Seed.

PI 534903 donor id: AZ 381. origin: UNKNOWN. other id: Ames 4812.
group: Ames. Wild. Seed.

PI 534904. *Cuphea melvilla* Lindley LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 35. origin: Brazil. collector: G.
Hatschbach. other id: Ames 4822. group: Ames.
locality: Mato Grasso Rio Corrente. Cultivated. Seed.

PI 534905. *Cuphea micropetala* Kunth LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 310. origin: Portugal. other id: Ames
4827. group: Ames. other id: 1451. locality: Hortus
Botanicus, Coimbra. Wild. Seed.

PI 534906 to 534907. *Cuphea pinetorum* Benth. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

PI 534906 donor id: AZ 39. origin: Mexico. collected: February
1979. collector: Greenwood. other id: Ames 4906.
group: Ames. Wild. Seed.

PI 534907 donor id: AZ 40. origin: Mexico. collector: Greenwood.
other id: Ames 4907. group: Ames. Wild. Seed.

PI 534908. *Cuphea procumbens* Cav. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 2. origin: UNKNOWN. other id: Ames 4791.
other id: B-53522. Wild. Seed.

PI 534909. *Cuphea* sp. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

PI 534909-continued

donor id: AZ 304. origin: Mexico. collector: R. Burhow,
G. Naghan. collector id: GN MEX 14. other id: Ames
4831. group: Ames. remarks: Petals red. Calyx tube 20mm
long. Wild. Seed.

PI 534910. *Cuphea tolucana* Peyr. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 48. origin: Mexico. collector: McVaugh and
Koelz. collector id: 20570. other id: Ames 4779.
group: Ames. Wild. Seed.

PI 534911. *Cuphea viscosissima* Jacq. LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 49. origin: United States. collector:
Balogh. collector id: 912. other id: Ames 4763. group:
Ames. Wild. Seed.

PI 534912. *Cuphea wrightii* A. Gray LYTHRACEAE

Donated by: Thompson, A.E., U.S. Water Conservation Laboratory,
USDA-ARS, 4331 East Broadway, Pheonix, Arizona, United States.
Received July 1988.

donor id: AZ 378. origin: UNKNOWN. other id: Ames 4947.
group: Ames. Wild. Seed.

PI 534913 to 534918. *Phaseolus lunatus* L. var. *lunatus* FABACEAE Lima
bean

Donated by: Crow, R., 13214 Perkins Rd., Woodstock, Illinois, United
States. remarks: Received through John Swenson, 245 Hawthorn Ave.,
Glencoe, IL 60022. Received February 21, 1989.

PI 534913 origin: United States. cultivar: COWEY. remarks: Bush,
fresh shell type. Seeds dark red. Cultivated. Seed.

PI 534914 origin: United States. cultivar: GANYMEDE. remarks:
Pole, fresh shell type. Seeds creme, mottled brown.
Cultivated. Seed.

PI 534913 to 534918-continued

- PI 534915 **origin:** United States. **cultivar:** HALF & HALF. **remarks:** Pole, fresh shell type. Seeds creme, mottled brown. Cultivated. Seed.
- PI 534916 **origin:** United States. **cultivar:** NEPTUNE. **remarks:** Pole, fresh shell type. Seeds white, mottled brown. Cultivated. Seed.
- PI 534917 **origin:** United States. **cultivar:** RED CALICO. **remarks:** Pole, fresh shell type. Seeds dark red with black stripes. Cultivated. Seed.
- PI 534918 **origin:** United States. **cultivar:** CAVE DWELLER. **locality:** Cliff dweller lodging. **remarks:** Semi-vine, snap & dry type. Seeds dark red. Cultivated. Seed.

PI 534919 to 534926. *Phaseolus vulgaris* L. var. *vulgaris* FABACEAE
Common bean

Donated by: Crow, R., 13214 Perkins Rd., Woodstock, Illinois, United States. **remarks:** Received through John Swenson, 245 Hawthorn Ave., Glencoe, IL 60022. Received February 21, 1989.

- PI 534919 **origin:** United States. **cultivar:** AFRICAN PREMIER. **remarks:** Bush, dry bean type. Seeds pink with black stripes. Cultivated. Seed.
- PI 534920 **origin:** United States. **cultivar:** BELLS STRINGLESS. **remarks:** Pole, snap bean type. Seeds dark tan. Cultivated. Seed.
- PI 534921 **origin:** United States. **cultivar:** BROWN EYE. **remarks:** Bush, wax snap type. Seeds white with brown eye. Cultivated. Seed.
- PI 534922 **origin:** United States. **cultivar:** EARLY SHELLOUT. **remarks:** Bush, dry bean type. Seeds white with red stripes. Cultivated. Seed.
- PI 534923 **origin:** United States. **cultivar:** HORSEHEAD. **remarks:** Bush, dry bean type. Seeds dark purple. Cultivated. Seed.
- PI 534924 **origin:** United States. **cultivar:** LOUISIANA SNAP. **remarks:** Pole, snap bean type. Seeds creme with purple stripes. Cultivated. Seed.
- PI 534925 **origin:** United States. **cultivar:** MOLASSES FACE. **remarks:** Bush, dry bean type. Seeds creme with brown stripes. Cultivated. Seed.

PI 534919 to 534926-continued

PI 534926 origin: United States. cultivar: PREACHER. remarks: Pole, snap bean type. Seeds light brown. Cultivated. Seed.

PI 534927 to 535199. *Secale cereale* L. POACEAE Rye

Donated by: National Small Grains Collection, USDA-ARS, Small Grains Germ. Res. Fac., P.O. Box 307, Aberdeen, Idaho, United States. Received August 21, 1989.

PI 534927 origin: Portugal. cultivar: BRIGODA A/C M. other id: Cise 112. Winter Annual. Cultivar. Seed.

PI 534928 origin: Hungary. cultivar: ABRAHAM PETRONELLER. other id: Cise 91. Winter Annual. Cultivar. Seed.

PI 534929 origin: Italy. cultivar: ABRUZZI. other id: Cise 2. Winter Annual. Cultivar. Seed.

PI 534930 origin: United States. cultivar: ADAMS. other id: Cise 3. Winter Annual. Cultivar. Seed.

PI 534931 origin: Finland. cultivar: AITTA. other id: NSL 244953. Winter Annual. Cultivar. Seed.

PI 534932 origin: Iran. cultivar: ALTEVOGT RF 94B. other id: NSL 244954. Winter Annual. Cultivar. Seed.

PI 534933 origin: German Democratic Repub. cultivar: AMALANCLOR. other id: Cise 71. Winter Annual. Cultivar. Seed.

PI 534934 origin: Finland. cultivar: ANNA. other id: NSL 244955. Winter Annual. Cultivar. Seed.

PI 534935 origin: Canada. cultivar: ANTELOPE. other id: Cise 4. Winter Annual. Cultivar. Seed.

PI 534936 origin: United States. cultivar: ATHENS ABRUZZI. other id: Cise 175. Winter Annual. Cultivar. Seed.

PI 534937 origin: Poland. cultivar: B.A. II. other id: NSL 244956. Winter Annual. Cultivar. Seed.

PI 534938 origin: German Democratic Repub. cultivar: B.O.ST151. other id: NSL 244957. Winter Annual. Cultivar. Seed.

PI 534939 origin: United States. cultivar: BALBO. other id: Cise 5. Winter Annual. Cultivar. Seed.

PI 534940 origin: Portugal. cultivar: BARROSO. other id: NSL 234909. Winter Annual. Cultivar. Seed.

PI 534927 to 535199-continued

- PI 534941 origin: Soviet Union. cultivar: BEZENCUKSKAJA. other id: NSL 234913. Winter Annual. Cultivar. Seed.
- PI 534942 origin: United States. cultivar: BONEL. other id: Cise 7. Winter Annual. Cultivar. Seed.
- PI 534943 origin: Germany. cultivar: BRASOV 200-N. other id: Cise 43. Winter Annual. Cultivar. Seed.
- PI 534944 origin: Bulgaria. cultivar: C-2. other id: NSL 234957. Winter Annual. Cultivar. Seed.
- PI 534945 origin: Romania. cultivar: CAPUSUL MIC. other id: NSL 244958. Winter Annual. Cultivar. Seed.
- PI 534946 origin: Canada. cultivar: CARIBOU. other id: Cise 8. Winter Annual. Cultivar. Seed.
- PI 534947 origin: Portugal. cultivar: CASTELO BRANCO. other id: Cise 114. Winter Annual. Cultivar. Seed.
- PI 534948 origin: Soviet Union. cultivar: CHARKOVSKAJA 55. other id: NSL 234919. Winter Annual. Cultivar. Seed.
- PI 534949 origin: Czechoslovakia. cultivar: CHLUMECKE. other id: NSL 244959. Winter Annual. Cultivar. Seed.
- PI 534950 origin: Poland. cultivar: CHODAN. other id: NSL 234921. Winter Annual. Cultivar. Seed.
- PI 534951 origin: Argentina. cultivar: CHOIQUE. other id: NSL 244960. Winter Annual. Cultivar. Seed.
- PI 534952 origin: Canada. cultivar: COUGAR. other id: Cise 177. Winter Annual. Cultivar. Seed.
- PI 534953 origin: United States. cultivar: CU 3732. other id: NSL 244961. Winter Annual. Cultivar. Seed.
- PI 534954 origin: United States. cultivar: DAKOLD. other id: Cise 180. Winter Annual. Cultivar. Seed.
- PI 534955 origin: Poland. cultivar: DANKOWSKIE ZIELONKOWE. other id: NSL 244962. Winter Annual. Cultivar. Seed.
- PI 534956 origin: Czechoslovakia. cultivar: DOBROVICKE. other id: Cise 97. Winter Annual. Cultivar. Seed.
- PI 534957 origin: Germany, Federal Rep of. cultivar: DOHLAUER. other id: NSL 244963. Winter Annual. Cultivar. Seed.

PI 534927 to 535199-continued

- PI 534958 origin: Argentina. cultivar: DON ENRIQUE. other id: NSL 244964. Winter Annual. Cultivar. Seed.
- PI 534959 origin: Hungary. cultivar: DUNA TISZAKOZI. other id: NSL 244965. Winter Annual. Cultivar. Seed.
- PI 534960 origin: Austria. cultivar: EDELHOFER NEU W ROGE. other id: Cise 75. Winter Annual. Cultivar. Seed.
- PI 534961 origin: United States. cultivar: ELBON. other id: Cise 11. Winter Annual. Cultivar. Seed.
- PI 534962 origin: United States. cultivar: EXPLORER. other id: Cise 15. Winter Annual. Cultivar. Seed.
- PI 534963 origin: German Democratic Repub. cultivar: F G P 21. other id: Cise 77. Winter Annual. Cultivar. Seed.
- PI 534964 origin: German Democratic Repub. cultivar: FINNISCHER 4N. other id: NSL 244966. Winter Annual. Cultivar. Seed.
- PI 534965 origin: United States. cultivar: FLORIDA BLACK. other id: Cise 16. Winter Annual. Cultivar. Seed.
- PI 534966 origin: United States. cultivar: FORRAJERO MASSAUX. other id: NSL 244967. Winter Annual. Cultivar. Seed.
- PI 534967 origin: German Democratic Repub. cultivar: FRIEDRICHSWERTHER P 50. other id: NSL 244968. Winter Annual. Cultivar. Seed.
- PI 534968 origin: Canada. cultivar: FRONTIER. other id: Cise 182. other id: CV-9. source: Crop Sci. 23(1):0185. group: CSR-RYE. Winter Annual. Cultivar. Seed.
- PI 534969 origin: German Democratic Repub. cultivar: GAITON. other id: Cise 51. Winter Annual. Cultivar. Seed.
- PI 534970 origin: Belgium. cultivar: GALMA. other id: NSL 244969. Winter Annual. Cultivar. Seed.
- PI 534971 origin: Canada. cultivar: GFW. other id: NSL 234959. Winter Annual. Cultivar. Seed.
- PI 534972 origin: German Democratic Repub. cultivar: GULZOWER BO ST. 151. other id: NSL 234923. Winter Annual. Cultivar. Seed.
- PI 534973 origin: German Democratic Repub. cultivar: GULZOWER ST. 1064/7. other id: NSL 234924. Winter Annual. Cultivar. Seed.

PI 534927 to 535199-continued

- PI 534974 origin: German Democratic Repub. cultivar: GULZOWER ST. 1714. other id: NSL 234925. Winter Annual. Cultivar. Seed.
- PI 534975 origin: German Democratic Repub. cultivar: GULZOWER ST. 401. other id: NSL 234926. Winter Annual. Cultivar. Seed.
- PI 534976 origin: German Democratic Repub. cultivar: HADM STAMN 514-48. other id: Cise 55. Winter Annual. Cultivar. Seed.
- PI 534977 origin: German Democratic Repub. cultivar: HADM STAMN 529-48. other id: Cise 56. Winter Annual. Cultivar. Seed.
- PI 534978 origin: German Democratic Repub. cultivar: HALLE (P.M.R.). other id: NSL 234927. Winter Annual. Cultivar. Seed.
- PI 534979 origin: German Democratic Repub. cultivar: HALLE (R.R.). other id: NSL 234928. Winter Annual. Cultivar. Seed.
- PI 534980 origin: Germany, Federal Rep of. cultivar: HALO. other id: NSL 244970. Winter Annual. Cultivar. Seed.
- PI 534981 origin: Japan. cultivar: HARU 4. other id: NSL 244971. Winter Annual. Cultivar. Seed.
- PI 534982 origin: Germany, Federal Rep of. cultivar: HGP 4. other id: NSL 244972. Winter Annual. Cultivar. Seed.
- PI 534983 origin: United States. cultivar: HIWASSEE. other id: Cise 188. Winter Annual. Cultivar. Seed.
- PI 534984 origin: Finland. cultivar: HJA 7052. other id: NSL 244973. Winter Annual. Cultivar. Seed.
- PI 534985 origin: Finland. cultivar: HJA JUSSI 5. other id: NSL 234930. Winter Annual. Cultivar. Seed.
- PI 534986 origin: German Democratic Repub. cultivar: HOHENTHURM. other id: NSL 244974. Winter Annual. Cultivar. Seed.
- PI 534987 origin: Argentina. cultivar: INSAVE F.A.. other id: NSL 244975. Winter Annual. Cultivar. Seed.
- PI 534988 origin: Argentina. cultivar: INTERNADOR. other id: NSL 244976. Winter Annual. Cultivar. Seed.
- PI 534989 origin: Hungary. cultivar: JAPAJEDELSE. other id: Cise 85. Winter Annual. Cultivar. Seed.

PI 534927 to 535199-continued

- PI 534990 origin: Poland. cultivar: JEC 543. other id: NSL 234931. Winter Annual. Cultivar. Seed.
- PI 534991 origin: Poland. cultivar: JEC 7/1090. other id: NSL 234960. Winter Annual. Cultivar. Seed.
- PI 534992 origin: Finland. cultivar: JO-3012. other id: NSL 244977. Winter Annual. Cultivar. Seed.
- PI 534993 origin: Finland. cultivar: JO-3093. other id: NSL 244978. Winter Annual. Cultivar. Seed.
- PI 534994 origin: Finland. cultivar: JO-3374. other id: NSL 244979. Winter Annual. Cultivar. Seed.
- PI 534995 origin: United States. cultivar: JO-6989. other id: NSL 244980. Winter Annual. Cultivar. Seed.
- PI 534996 origin: Finland. cultivar: JO-71115. other id: NSL 244981. Winter Annual. Cultivar. Seed.
- PI 534997 origin: Finland. cultivar: JO-71120. other id: NSL 244982. Winter Annual. Cultivar. Seed.
- PI 534998 origin: Finland. cultivar: JO-72118. other id: NSL 244983. Winter Annual. Cultivar. Seed.
- PI 534999 origin: Finland. cultivar: JO-72130. other id: NSL 244984. Winter Annual. Cultivar. Seed.
- PI 535000 origin: Finland. cultivar: JO-8112. other id: NSL 244985. Winter Annual. Cultivar. Seed.
- PI 535001 origin: Bulgaria. cultivar: K 10028. other id: NSL 244986. Winter Annual. Cultivar. Seed.
- PI 535002 origin: Poland. cultivar: K-11 45-K 337/1-d. other id: NSL 234961. Winter Annual. Cultivar. Seed.
- PI 535003 origin: Finland. cultivar: KARTANO. other id: NSL 244987. other id: JO-6977. Winter Annual. Cultivar. Seed.
- PI 535004 origin: Austria. cultivar: KARTNER I. other id: Cise 52. Winter Annual. Cultivar. Seed.
- PI 535005 origin: Finland. cultivar: KELPO. other id: NSL 244988. Winter Annual. Cultivar. Seed.
- PI 535006 origin: Kenya. cultivar: KENYA. other id: Cise 19. Winter Annual. Cultivar. Seed.

PI 534927 to 535199-continued

- PI 535007 **origin:** Austria. **cultivar:** KIRSZKAJH. **other id:** CIse 80. Winter Annual. Cultivar. Seed.
- PI 535008 **origin:** Canada. **cultivar:** KODIAK. **other id:** CIse 178. Winter Annual. Cultivar. Seed.
- PI 535009 **origin:** Hungary. **cultivar:** KOLAROVKA. **other id:** CIse 95. Winter Annual. Cultivar. Seed.
- PI 535010 **origin:** United States. **cultivar:** KOMBAJNOVAJA. **other id:** NSL 244989. Winter Annual. Cultivar. Seed.
- PI 535011 **origin:** Netherlands. **cultivar:** KONINGSROGGEN 4N. **other id:** NSL 244990. Winter Annual. Cultivar. Seed.
- PI 535012 **origin:** German Democratic Repub. **cultivar:** KUCKUCKS. **other id:** NSL 234932. **remarks:** Inbred Line. Winter Annual. Cultivar. Seed.
- PI 535013 **origin:** German Democratic Repub. **cultivar:** KUCKUCKS 4N. **other id:** NSL 244991. Winter Annual. Cultivar. Seed.
- PI 535014 **origin:** Germany, Federal Rep of. **cultivar:** KUSTRO. **other id:** CIse 181. Winter Annual. Cultivar. Seed.
- PI 535015 **origin:** Argentina. **cultivar:** LC 68/1233. **other id:** NSL 244992. Winter Annual. Cultivar. Seed.
- PI 535016 **origin:** German Democratic Repub. **cultivar:** LEKKEROGGE. **other id:** CIse 69. Winter Annual. Cultivar. Seed.
- PI 535017 **origin:** Netherlands. **cultivar:** LEUVENUMSEROGGEN 4N. **other id:** NSL 244993. Winter Annual. Cultivar. Seed.
- PI 535018 **origin:** Portugal. **other id:** NSL 244994. **remarks:** Local type 103/1977. Winter Annual. Landrace. Seed.
- PI 535019 **origin:** Portugal. **other id:** NSL 244995. **remarks:** Local type 104/1977. Winter Annual. Landrace. Seed.
- PI 535020 **origin:** Portugal. **other id:** NSL 244996. **remarks:** Local type 114/1977. Winter Annual. Landrace. Seed.
- PI 535021 **origin:** Portugal. **other id:** NSL 244997. **remarks:** Local type 116/1977. Winter Annual. Landrace. Seed.
- PI 535022 **origin:** Turkey. **other id:** NSL 234933. **remarks:** Local type 12403/67. Winter Annual. Landrace. Seed.
- PI 535023 **origin:** Portugal. **other id:** NSL 244998. **remarks:** Local type 125/1977. Winter Annual. Landrace. Seed.

PI 534927 to 535199-continued

- PI 535024 origin: Turkey. other id: NSL 244999. remarks: Local type 13. Winter Annual. Landrace. Seed.
- PI 535025 origin: Portugal. other id: NSL 245000. remarks: Local type 130/1977. Winter Annual. Landrace. Seed.
- PI 535026 origin: Portugal. other id: NSL 245001. remarks: Local type 136/1977. Winter Annual. Landrace. Seed.
- PI 535027 origin: Turkey. other id: NSL 234934. remarks: Local type 15560/67. Winter Annual. Landrace. Seed.
- PI 535028 origin: Turkey. other id: NSL 234935. remarks: Local type 15580/67. Winter Annual. Landrace. Seed.
- PI 535029 origin: Turkey. other id: NSL 245002. remarks: Local type 26504/68. Winter Annual. Landrace. Seed.
- PI 535030 origin: Turkey. other id: NSL 245003. remarks: Local type 26523/68. Winter Annual. Landrace. Seed.
- PI 535031 origin: Turkey. other id: NSL 234936. remarks: Local type 26619/68. Winter Annual. Landrace. Seed.
- PI 535032 origin: Turkey. other id: NSL 245004. remarks: Local type 26737/68. Winter Annual. Landrace. Seed.
- PI 535033 origin: Turkey. other id: NSL 245005. remarks: Local type 3. Winter Annual. Landrace. Seed.
- PI 535034 origin: Turkey. other id: NSL 245006. remarks: Local type 32. Winter Annual. Landrace. Seed.
- PI 535035 origin: Turkey. other id: NSL 234937. remarks: Local type 32067/70. Winter Annual. Landrace. Seed.
- PI 535036 origin: Turkey. other id: NSL 234938. remarks: Local type 32210/70. Winter Annual. Landrace. Seed.
- PI 535037 origin: Turkey. other id: NSL 245007. remarks: Local type 32705/71. Winter Annual. Landrace. Seed.
- PI 535038 origin: Turkey. other id: NSL 234939. remarks: Local type 33116/71. Winter Annual. Landrace. Seed.
- PI 535039 origin: Turkey. other id: NSL 245008. remarks: Local type 33313/71. Winter Annual. Landrace. Seed.
- PI 535040 origin: Turkey. other id: NSL 234940. remarks: Local type 33368/71. Winter Annual. Landrace. Seed.

PI 534927 to 535199-continued

- PI 535041 origin: Turkey. other id: NSL 245009. remarks: Local type 33453/71. Winter Annual. Landrace. Seed.
- PI 535042 origin: Portugal. other id: NSL 245010. remarks: Local type 34/1977. Winter Annual. Landrace. Seed.
- PI 535043 origin: Portugal. other id: NSL 245011. remarks: Local type 36/77. Winter Annual. Landrace. Seed.
- PI 535044 origin: Turkey. other id: NSL 245012. remarks: Local type 4. Winter Annual. Landrace. Seed.
- PI 535045 origin: Turkey. other id: NSL 245013. remarks: Local type 48. Winter Annual. Landrace. Seed.
- PI 535046 origin: Portugal. other id: NSL 245014. remarks: Local type 53/77. Winter Annual. Landrace. Seed.
- PI 535047 origin: Portugal. other id: NSL 245015. remarks: Local type 55/1977. Winter Annual. Landrace. Seed.
- PI 535048 origin: Portugal. other id: NSL 245016. remarks: Local type 570/1978. Winter Annual. Landrace. Seed.
- PI 535049 origin: Portugal. other id: NSL 245017. remarks: Local type 576/1978. Winter Annual. Landrace. Seed.
- PI 535050 origin: Portugal. other id: NSL 245018. remarks: Local type 580/1978. Winter Annual. Landrace. Seed.
- PI 535051 origin: Portugal. other id: NSL 245019. remarks: Local type 588/1978. Winter Annual. Landrace. Seed.
- PI 535052 origin: Portugal. other id: NSL 245020. remarks: Local type 589/1978. Winter Annual. Landrace. Seed.
- PI 535053 origin: Portugal. other id: NSL 245021. remarks: Local type 595/1978. Winter Annual. Landrace. Seed.
- PI 535054 origin: Turkey. other id: NSL 245022. remarks: Local type 6. Winter Annual. Landrace. Seed.
- PI 535055 origin: Portugal. other id: NSL 234962. remarks: Local type 605/78. Winter Annual. Landrace. Seed.
- PI 535056 origin: Portugal. other id: NSL 245023. remarks: Local type 609/1978. Winter Annual. Landrace. Seed.
- PI 535057 origin: Turkey. other id: NSL 245024. remarks: Local type 61. Winter Annual. Landrace. Seed.

PI 534927 to 535199-continued

- PI 535058 origin: Portugal. other id: NSL 245025. remarks: Local type 611/1978. Winter Annual. Landrace. Seed.
- PI 535059 origin: Portugal. other id: NSL 234963. remarks: Local type 619/78. Winter Annual. Landrace. Seed.
- PI 535060 origin: Portugal. other id: NSL 234964. remarks: Local type 623/78. Winter Annual. Landrace. Seed.
- PI 535061 origin: Portugal. other id: NSL 234965. remarks: Local type 633/78. Winter Annual. Landrace. Seed.
- PI 535062 origin: Portugal. other id: NSL 234966. remarks: Local type 634/78. Winter Annual. Landrace. Seed.
- PI 535063 origin: Portugal. other id: NSL 245026. remarks: Local type 638/1978. Winter Annual. Landrace. Seed.
- PI 535064 origin: Portugal. other id: NSL 234967. remarks: Local type 642/78. Winter Annual. Landrace. Seed.
- PI 535065 origin: Portugal. other id: NSL 245027. remarks: Local type 648/1978. Winter Annual. Landrace. Seed.
- PI 535066 origin: Portugal. other id: NSL 245029. remarks: Local type 655/1978. Winter Annual. Landrace. Seed.
- PI 535067 origin: Portugal. other id: NSL 234968. remarks: Local type 656/78. Winter Annual. Landrace. Seed.
- PI 535068 origin: Portugal. other id: NSL 234969. remarks: Local type 660/78. Winter Annual. Landrace. Seed.
- PI 535069 origin: Portugal. other id: NSL 245030. remarks: Local type 67/1977. Winter Annual. Landrace. Seed.
- PI 535070 origin: Portugal. other id: NSL 234970. remarks: Local type 673/78. Winter Annual. Landrace. Seed.
- PI 535071 origin: Turkey. other id: NSL 245031. remarks: Local type 71. Winter Annual. Landrace. Seed.
- PI 535072 origin: Turkey. other id: NSL 245032. remarks: Local type 73. Winter Annual. Landrace. Seed.
- PI 535073 origin: Portugal. other id: NSL 245033. remarks: Local type 76/1977. Winter Annual. Landrace. Seed.
- PI 535074 origin: Portugal. other id: NSL 234971. remarks: Local type 77 A-100. Winter Annual. Landrace. Seed.

PI 534927 to 535199-continued

PI 535075	origin: Portugal. other id: NSL 234972. type 77 A-102. Winter Annual. Landrace.	remarks: Local Seed.
PI 535076	origin: Portugal. other id: NSL 234973. type 77 A-105. Winter Annual. Landrace.	remarks: Local Seed.
PI 535077	origin: Portugal. other id: NSL 234974. type 77 A-107. Winter Annual. Landrace.	remarks: Local Seed.
PI 535078	origin: Portugal. other id: NSL 234975. type 77 A-108. Winter Annual. Landrace.	remarks: Local Seed.
PI 535079	origin: Portugal. other id: NSL 234976. type 77 A-110. Winter Annual. Landrace.	remarks: Local Seed.
PI 535080	origin: Portugal. other id: NSL 234977. type 77 A-115. Winter Annual. Landrace.	remarks: Local Seed.
PI 535081	origin: Portugal. other id: NSL 234978. type 77 A-118. Winter Annual. Landrace.	remarks: Local Seed.
PI 535082	origin: Portugal. other id: NSL 234979. type 77 A-119. Winter Annual. Landrace.	remarks: Local Seed.
PI 535083	origin: Portugal. other id: NSL 234980. type 77 A-124. Winter Annual. Landrace.	remarks: Local Seed.
PI 535084	origin: Portugal. other id: NSL 234981. type 77 A-128. Winter Annual. Landrace.	remarks: Local Seed.
PI 535085	origin: Portugal. other id: NSL 234982. type 77 A-17. Winter Annual. Landrace.	remarks: Local Seed.
PI 535086	origin: Portugal. other id: NSL 234983. type 77 A-22. Winter Annual. Landrace.	remarks: Local Seed.
PI 535087	origin: Portugal. other id: NSL 234984. type 77 A-26. Winter Annual. Landrace.	remarks: Local Seed.
PI 535088	origin: Portugal. other id: NSL 234985. type 77 A-38. Winter Annual. Landrace.	remarks: Local Seed.
PI 535089	origin: Portugal. other id: NSL 234986. type 77 A-49. Winter Annual. Landrace.	remarks: Local Seed.
PI 535090	origin: Portugal. other id: NSL 245034. type 77 A-52. Winter Annual. Landrace.	remarks: Local Seed.
PI 535091	origin: Portugal. other id: NSL 234987. type 77 A-58. Winter Annual. Landrace.	remarks: Local Seed.

PI 534927 to 535199-continued

PI 535092 origin: Portugal. other id: NSL 234988. remarks: Local
type 77 A-6. Winter Annual. Landrace. Seed.

PI 535093 origin: Portugal. other id: NSL 234989. remarks: Local
type 77 A-60. Winter Annual. Landrace. Seed.

PI 535094 origin: Portugal. other id: NSL 234990. remarks: Local
type 77 A-62. Winter Annual. Landrace. Seed.

PI 535095 origin: Portugal. other id: NSL 234991. remarks: Local
type 77 A-70. Winter Annual. Landrace. Seed.

PI 535096 origin: Portugal. other id: NSL 234992. remarks: Local
type 77 A-80. Winter Annual. Landrace. Seed.

PI 535097 origin: Portugal. other id: NSL 234993. remarks: Local
type 77 A-83. Winter Annual. Landrace. Seed.

PI 535098 origin: Portugal. other id: NSL 234994. remarks: Local
type 77 A-99. Winter Annual. Landrace. Seed.

PI 535099 origin: Portugal. other id: NSL 234995. remarks: Local
type 78 A-552. Winter Annual. Landrace. Seed.

PI 535100 origin: Portugal. other id: NSL 234996. remarks: Local
type 78 A-558. Winter Annual. Landrace. Seed.

PI 535101 origin: Portugal. other id: NSL 234997. remarks: Local
type 78 A-559. Winter Annual. Landrace. Seed.

PI 535102 origin: Portugal. other id: NSL 234998. remarks: Local
type 78 A-560. Winter Annual. Landrace. Seed.

PI 535103 origin: Portugal. other id: NSL 234999. remarks: Local
type 78 A-561. Winter Annual. Landrace. Seed.

PI 535104 origin: Portugal. other id: NSL 235000. remarks: Local
type 78 A-565. Winter Annual. Landrace. Seed.

PI 535105 origin: Portugal. other id: NSL 235001. remarks: Local
type 78 A-566. Winter Annual. Landrace. Seed.

PI 535106 origin: Portugal. other id: NSL 235002. remarks: Local
type 78 A-567. Winter Annual. Landrace. Seed.

PI 535107 origin: Portugal. other id: NSL 235003. remarks: Local
type 78 A-600. Winter Annual. Landrace. Seed.

PI 535108 origin: Portugal. other id: NSL 235004. remarks: Local
type 78 A-621. Winter Annual. Landrace. Seed.

PI 534927 to 535199-continued

PI 535109 origin: Portugal. other id: NSL 235005. remarks: Local
type 78 A-626. Winter Annual. Landrace. Seed.

PI 535110 origin: Portugal. other id: NSL 235006. remarks: Local
type 78 A-627. Winter Annual. Landrace. Seed.

PI 535111 origin: Portugal. other id: NSL 235007. remarks: Local
type 78 A-628. Winter Annual. Landrace. Seed.

PI 535112 origin: Portugal. other id: NSL 235008. remarks: Local
type 78 A-629. Winter Annual. Landrace. Seed.

PI 535113 origin: Portugal. other id: NSL 235009. remarks: Local
type 78 A-630. Winter Annual. Landrace. Seed.

PI 535114 origin: Portugal. other id: NSL 235010. remarks: Local
type 78 A-631. Winter Annual. Landrace. Seed.

PI 535115 origin: Portugal. other id: NSL 245035. remarks: Local
type 78 A-632. Winter Annual. Landrace. Seed.

PI 535116 origin: Portugal. other id: NSL 245036. remarks: Local
type 78 A-635. Winter Annual. Landrace. Seed.

PI 535117 origin: Portugal. other id: NSL 235011. remarks: Local
type 78 A-636. Winter Annual. Landrace. Seed.

PI 535118 origin: Portugal. other id: NSL 235012. remarks: Local
type 78 A-637. Winter Annual. Landrace. Seed.

PI 535119 origin: Portugal. other id: NSL 235013. remarks: Local
type 78 A-639. Winter Annual. Landrace. Seed.

PI 535120 origin: Portugal. other id: NSL 235014. remarks: Local
type 78 A-640. Winter Annual. Landrace. Seed.

PI 535121 origin: Portugal. other id: NSL 235015. remarks: Local
type 78 A-641. Winter Annual. Landrace. Seed.

PI 535122 origin: Portugal. other id: NSL 235016. remarks: Local
type 78 A-645. Winter Annual. Landrace. Seed.

PI 535123 origin: Portugal. other id: NSL 235017. remarks: Local
type 78 A-646. Winter Annual. Landrace. Seed.

PI 535124 origin: Portugal. other id: NSL 235018. remarks: Local
type 78 A-661. Winter Annual. Landrace. Seed.

PI 535125 origin: Portugal. other id: NSL 235019. remarks: Local
type 78 A-662. Winter Annual. Landrace. Seed.

PI 534927 to 535199-continued

PI 535126 origin: Portugal. other id: NSL 235020. remarks: Local
type 78 A-663. Winter Annual. Landrace. Seed.

PI 535127 origin: Portugal. other id: NSL 235021. remarks: Local
type 78 A-664. Winter Annual. Landrace. Seed.

PI 535128 origin: Portugal. other id: NSL 235022. remarks: Local
type 78 A-665. Winter Annual. Landrace. Seed.

PI 535129 origin: Portugal. other id: NSL 235023. remarks: Local
type 78 A-667. Winter Annual. Landrace. Seed.

PI 535130 origin: Portugal. other id: NSL 235024. remarks: Local
type 78 A-668. Winter Annual. Landrace. Seed.

PI 535131 origin: Portugal. other id: NSL 235025. remarks: Local
type 78 A-669. Winter Annual. Landrace. Seed.

PI 535132 origin: Portugal. other id: NSL 235026. remarks: Local
type 78 A-674. Winter Annual. Landrace. Seed.

PI 535133 origin: Portugal. other id: NSL 235027. remarks: Local
type 78 A-678. Winter Annual. Landrace. Seed.

PI 535134 origin: Portugal. other id: NSL 235028. remarks: Local
type 78 A-680. Winter Annual. Landrace. Seed.

PI 535135 origin: Portugal. other id: NSL 235029. remarks: Local
type 78 A-688. Winter Annual. Landrace. Seed.

PI 535136 origin: Portugal. other id: NSL 235030. remarks: Local
type 78 A-857. Winter Annual. Landrace. Seed.

PI 535137 origin: Portugal. other id: NSL 235031. remarks: Local
type 78 A-867. Winter Annual. Landrace. Seed.

PI 535138 origin: Portugal. other id: NSL 235032. remarks: Local
type 78 A-878. Winter Annual. Landrace. Seed.

PI 535139 origin: Portugal. other id: NSL 235033. remarks: Local
type 78 A-879. Winter Annual. Landrace. Seed.

PI 535140 origin: Portugal. other id: NSL 235034. remarks: Local
type 78 A-881. Winter Annual. Landrace. Seed.

PI 535141 origin: Portugal. other id: NSL 235035. remarks: Local
type 93/77. Winter Annual. Landrace. Seed.

PI 535142 origin: Portugal. other id: NSL 245037. remarks: Local
type 98/1977. Winter Annual. Landrace. Seed.

PI 534927 to 535199-continued

- PI 535143 origin: German Democratic Repub. other id: NSL 245038. remarks: Local type Erzgebirgischer. Winter Annual. Landrace. Seed.
- PI 535144 origin: United States. other id: NSL 234941. remarks: Local type French. Winter Annual. Landrace. Seed.
- PI 535145 origin: Austria. other id: NSL 234942. remarks: Local type Kaltenberger. Winter Annual. Landrace. Seed.
- PI 535146 origin: Austria. other id: NSL 234943. remarks: Local type Lungauer Tauer. Winter Annual. Landrace. Seed.
- PI 535147 origin: Yugoslavia. other id: NSL 245039. remarks: Local type Mestnaja. Winter Annual. Landrace. Seed.
- PI 535148 origin: Austria. other id: NSL 234944. remarks: Local type Muchlenviertel. Winter Annual. Landrace. Seed.
- PI 535149 origin: Germany, Federal Rep of. cultivar: LUKAS. other id: NSL 245040. Winter Annual. Cultivar. Seed.
- PI 535150 origin: Spain. cultivar: MANSILLA. other id: NSL 234945. Winter Annual. Cultivar. Seed.
- PI 535151 origin: Austria. cultivar: MARCHFELDER. other id: NSL 245041. Winter Annual. Cultivar. Seed.
- PI 535152 origin: Germany, Federal Rep of. cultivar: MENSELDORFER FICHELGEBIRGSROG. other id: NSL 245042. Winter Annual. Cultivar. Seed.
- PI 535153 origin: UNKNOWN. cultivar: MERCED. other id: CIsE 21. Winter Annual. Cultivar. Seed.
- PI 535154 origin: United States. cultivar: MISSISSIPPI ABRUZZI. other id: CIsE 22. Winter Annual. Cultivar. Seed.
- PI 535155 origin: German Democratic Repub. cultivar: MUTANTE 2824. other id: NSL 245043. Winter Annual. Cultivar. Seed.
- PI 535156 origin: German Democratic Repub. cultivar: MUTANTE 6/1/72. other id: NSL 245044. Winter Annual. Cultivar. Seed.
- PI 535157 origin: Hungary. cultivar: NALZOVSKÉ. other id: CIsE 89. Winter Annual. Cultivar. Seed.
- PI 535158 origin: German Democratic Repub. cultivar: NOSSEN ST.1969. other id: NSL 245045. Winter Annual. Cultivar. Seed.

PI 534927 to 535199-continued

- PI 535159 origin: United States. cultivar: OKEMA. other id: CIs 189. Winter Annual. Cultivar. Seed.
- PI 535160 origin: Romania. cultivar: P-27-SI-C. other id: NSL 245046. Winter Annual. Cultivar. Seed.
- PI 535161 origin: Romania. cultivar: P-28-MO-C. other id: NSL 245047. Winter Annual. Cultivar. Seed.
- PI 535162 origin: Romania. cultivar: P-28-R-C. other id: NSL 245048. Winter Annual. Cultivar. Seed.
- PI 535163 origin: Romania. cultivar: P-31-SI-C. other id: NSL 245049. Winter Annual. Cultivar. Seed.
- PI 535164 origin: Romania. cultivar: P-33-ER-C. other id: NSL 245050. Winter Annual. Cultivar. Seed.
- PI 535165 origin: Germany, Federal Rep of. cultivar: PADANA. other id: CIs 46. Winter Annual. Cultivar. Seed.
- PI 535166 origin: Netherlands. cultivar: PARANA. other id: NSL 245051. Winter Annual. Cultivar. Seed.
- PI 535167 origin: Poland. cultivar: PASTAR. other id: NSL 234947. Winter Annual. Cultivar. Seed.
- PI 535168 origin: Argentina. cultivar: PASTOREO MASSAUX. other id: NSL 245052. Winter Annual. Cultivar. Seed.
- PI 535169 origin: German Democratic Repub. cultivar: PETKUS 1064/70. other id: NSL 245053. Winter Annual. Cultivar. Seed.
- PI 535170 origin: German Democratic Repub. cultivar: PETKUS 1095. other id: NSL 245054. Winter Annual. Cultivar. Seed.
- PI 535171 origin: German Democratic Repub. historical origin: Germany Democratic Repub. cultivar: PETKUS AMELIORAT. other id: CIs 45. Winter Annual. Cultivar. Seed.
- PI 535172 origin: Germany, Federal Rep of. cultivar: PETRUS. other id: NSL 245055. Winter Annual. Cultivar. Seed.
- PI 535173 origin: Argentina. cultivar: PICO GENTARIO. other id: NSL 245056. Winter Annual. Cultivar. Seed.
- PI 535174 origin: Uruguay. cultivar: PICO URUGWAJ. other id: NSL 245057. Winter Annual. Cultivar. Seed.
- PI 535175 origin: United States. cultivar: PONSI. other id: NSL 245058. Winter Annual. Cultivar. Seed.

PI 534927 to 535199-continued

- PI 535176 origin: Sweden. cultivar: PORTO. other id: NSL 245059.
Winter Annual. Cultivar. Seed.
- PI 535177 origin: Canada. cultivar: PROLIFIC. other id: CIsE 26.
Winter Annual. Cultivar. Seed.
- PI 535178 origin: Poland. cultivar: PULAWSKIE PASTEWNE. other id:
NSL 245060. Winter Annual. Cultivar. Seed.
- PI 535179 origin: Poland. cultivar: PULAWSKIE ZIELONKOWE. other
id: NSL 245061. Winter Annual. Cultivar. Seed.
- PI 535180 origin: Canada. cultivar: PUMA. other id: CIsE 179.
Winter Annual. Cultivar. Seed.
- PI 535181 origin: German Democratic Repub. cultivar: PURMITOI.
other id: CIsE 72. Winter Annual. Cultivar. Seed.
- PI 535182 origin: Argentina. cultivar: REMECO. other id: NSL
234948. Winter Annual. Cultivar. Seed.
- PI 535183 origin: United Kingdom. cultivar: RHEIDOL. other id:
CIsE 104. Winter Annual. Cultivar. Seed.
- PI 535184 origin: Argentina. cultivar: RIO CUARTO. other id: NSL
234949. Winter Annual. Cultivar. Seed.
- PI 535185 origin: Argentina. cultivar: SAFICO. other id: NSL
234950. Winter Annual. Cultivar. Seed.
- PI 535186 origin: Finland. cultivar: SAMPO. other id: NSL 107279.
remarks: Background information unavailable. Winter
Annual. Cultivar. Seed.
- PI 535187 origin: Argentina. cultivar: SAN JOSE. other id: NSL
234951. Winter Annual. Cultivar. Seed.
- PI 535188 origin: United States. cultivar: SCHNIDT. other id: NSL
234952. Winter Annual. Cultivar. Seed.
- PI 535189 origin: Argentina. cultivar: SELECCION 70-78. other id:
NSL 234953. Winter Annual. Cultivar. Seed.
- PI 535190 origin: Sweden. cultivar: SV. K 44/12. other id: NSL
235036. Winter Annual. Cultivar. Seed.
- PI 535191 origin: Sweden. cultivar: SV.A 04987. other id: NSL
245062. Winter Annual. Cultivar. Seed.
- PI 535192 origin: Poland. cultivar: TEMPO. other id: NSL 234954.
Winter Annual. Cultivar. Seed.

PI 534927 to 535199-continued

- PI 535193 **origin:** Argentina. **cultivar:** TRENELENSE. **other id:** NSL 234955. Winter Annual. Cultivar. Seed.
- PI 535194 **origin:** Soviet Union. **cultivar:** TULSKAJA 1. **other id:** NSL 245063. Winter Annual. Cultivar. Seed.
- PI 535195 **origin:** Soviet Union. **cultivar:** URALSKAJA. **other id:** NSL 245064. Winter Annual. Cultivar. Seed.
- PI 535196 **origin:** Netherlands. **cultivar:** VADETRA 4N. **other id:** NSL 245065. Winter Annual. Cultivar. Seed.
- PI 535197 **origin:** Argentina. **cultivar:** VILLA PONCA DE AQUIAR. **other id:** NSL 245066. Winter Annual. Cultivar. Seed.
- PI 535198 **origin:** Canada. **historical origin:** Canada. **cultivar:** WESER. **other id:** Cise 33. Winter Annual. Cultivar. Seed.
- PI 535199 **origin:** United States. **cultivar:** WHEELER. **other id:** Cise 170. Winter Annual. Cultivar. Seed.

PI 535200 to 535203. *Phaseolus acutifolius* A. Gray var. *acutifolius*
FABACEAE Tepary bean

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

- PI 535200 **donor id:** TARS-004. **origin:** Mexico. **other id:** NI 843. **other id:** Debouck 300. **locality:** Penon Blanco. **elevation:** 1750m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535201 **donor id:** TARS-005. **origin:** Mexico. **other id:** NI 847. **other id:** Debouck 455. **locality:** Zapotan. **elevation:** 1600m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535202 **donor id:** TARS-006. **origin:** United States. **other id:** NI 775. **other id:** Buhrow SYACL. **locality:** Sycamore canyon. **elevation:** 1200m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535200 to 535203-continued

PI 535203 donor id: TARS-190. origin: Mexico. other id: L-176.
other id: NASH L19321a. locality: 139.2 km. E
Hermosillo. elevation: 2700m. remarks: Received through
University of California, Riverside CA 92521. Wild.
Seed.

PI 535204 to 535235. Phaseolus acutifolius A. Gray var. acutifolius
FABACEAE Tepary bean

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

PI 535204 donor id: TARS-003. origin: Mexico. other id: NI 839.
other id: CIAT G40074. other id: L-177. remarks:
Received through Dr. R. Merechal, Faculte des Sciences
Agronomiques de L'etat, P2800 Gembloux, Belgium.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.

PI 535205 donor id: TARS-007. origin: Mexico. other id: NI 787.
other id: Nabhan 950, SBACL. locality: 6 km N of San
Bernardo. remarks: Received through Dr. R. Merechal,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus acutifolius
var. latifolius. Wild. Seed.

PI 535206 donor id: TARS-008. origin: Mexico. other id: NI 562.
other id: INIA Son 31 A. remarks: Received through Dr.
R. Merechal, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus
acutifolius var. latifolius. Wild. Seed.

PI 535207 donor id: TARS-009. origin: Mexico. other id: NI 694.
other id: Debouck 517A. locality: Hecelchakan.
elevation: 50m. remarks: Received through Dr. R.
Merechal, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus
acutifolius var. latifolius. Wild. Seed.

PI 535208 donor id: TARS-010. origin: Mexico. other id: NI 721.
other id: DGD 288,G40084. locality: V. Ocampo. remarks:
Received through Dr. R. Merechal, Faculte des Sciences
Agronomiques de L'etat, P2800 Gembloux, Belgium.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.

PI 535209 donor id: TARS-142. origin: United States. other id: NA
15. remarks: Received through University of Cambridge,
Pembroke St., Cambridge CB2 3DX, England. received as:
Phaseolus acutifolius var. latifolius. Wild. Seed.

PI 535204 to 535235-continued

- PI 535210 donor id: TARS-156. origin: Mexico. other id: NI 502. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus acutifolius var. latifolius. Wild. Seed.
- PI 535211 donor id: TARS-191. origin: Mexico. other id: Nash L 19297. other id: L-177. locality: Hermosillo. remarks: Received through University of California, Riverside, CA 92521. received as: Phaseolus acutifolius var. latifolius. Wild. Seed.
- PI 535212 donor id: TARS-229. origin: Mexico. other id: L-266. locality: Rio Nozas, Dur-Par. remarks: Received through University of California, Riverside, CA 92521. received as: Phaseolus acutifolius var. latifolius. Wild. Seed.
- PI 535213 donor id: TARS-305. origin: United States. other id: GNX 525. other id: PR 10477. locality: Rosemont, Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Lands Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. received as: Phaseolus acutifolius var. latifolius. Wild. Seed.
- PI 535214 donor id: TARS-306. origin: United States. other id: GN 605. other id: PR 10478. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Lands Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. received as: Phaseolus acutifolius var. latifolius. Wild. Seed.
- PI 535215 donor id: TARS-307. origin: United States. other id: GN 610. other id: PR 10479. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Lands Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. received as: Phaseolus acutifolius var. latifolius. Wild. Seed.
- PI 535216 donor id: TARS-327. origin: Mexico. locality: Todos Santos. remarks: Received through Russ Buhrow, Dept. of Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. received as: Phaseolus acutifolius var. latifolius. Wild. Seed.
- PI 535217 donor id: TARS-378. origin: Mexico. other id: L-177. other id: Nash L19297. locality: 115 km E Hermosillo. elevation: 2700m. received as: Phaseolus acutifolius var. latifolius. Wild. Seed.

PI 535204 to 535235-continued

- PI 535218 donor id: TARS-379. origin: Mexico. other id: 78-M-114.
other id: Espumite. locality: Tapuchula mkt. remarks:
Received through USDA Field collecting Trip-1978, TARS
personnel. received as: Phaseolus acutifolius var.
latifolius. Wild. Seed.
- PI 535219 donor id: TARS-386. origin: Mexico. other id: Oax.88.
other id: IVT80680. remarks: Received through Dr. Eelco
Drifjout, Inst. for Hort. Plant breeding, Postbus 16,
6700 AA Wageningen, Holland. received as: Phaseolus
acutifolius var. latifolius. Wild. Seed.
- PI 535220 donor id: TARS-387. origin: Mexico. other id: NI 672.
other id: G40036. remarks: Received through CIAT,
Apartado 67-13, Cali, Colombia. received as: Phaseolus
acutifolius var. latifolius. Wild. Seed.
- PI 535221 donor id: TARS-389. origin: Mexico. other id: NI 558.
other id: 3568. remarks: Received through CIAT, Apartado
67-13, Cali, Colombia. received as: Phaseolus
acutifolius var. latifolius. Wild. Seed.
- PI 535222 donor id: TARS-434. origin: Mexico. locality: Tiburon
Island. remarks: Received through Mr. Gary Nabhan,
Office of Arid Lands Studies, University of Arizona, 845
Park N, Tucson, AZ 85719. received as: Phaseolus
acutifolius var. latifolius. Wild. Seed.
- PI 535223 donor id: TARS-508. origin: UNKNOWN. other id: T-1.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535224 donor id: TARS-509. origin: UNKNOWN. other id: T-5.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535225 donor id: TARS-510. origin: UNKNOWN. other id: T-5.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535226 donor id: TARS-511. origin: UNKNOWN. other id: T-6.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535227 donor id: TARS-512. origin: UNKNOWN. other id: T-8a.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535228 donor id: TARS-513. origin: UNKNOWN. other id: T-15.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.

PI 535204 to 535235-continued

- PI 535229 donor id: TARS-514. origin: UNKNOWN. other id: T-21.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535230 donor id: TARS-515. origin: UNKNOWN. other id: T-22.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535231 donor id: TARS-516. origin: UNKNOWN. other id: T-81-3.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535232 donor id: TARS-517. origin: UNKNOWN. other id:
TL242-45. received as: Phaseolus acutifolius var.
latifolius. Wild. Seed.
- PI 535233 donor id: TARS-518. origin: UNKNOWN. other id: TL-11.
received as: Phaseolus acutifolius var. latifolius.
Wild. Seed.
- PI 535234 donor id: TARS-520. origin: UNKNOWN. other id:
TL21-3-3. received as: Phaseolus acutifolius var.
latifolius. Wild. Seed.
- PI 535235 donor id: TARS-530. origin: UNKNOWN. other id:
76-TL-53. received as: Phaseolus acutifolius var.
latifolius. Wild. Seed.

PI 535236 to 535270. Phaseolus acutifolius var. tenuifolius A. Gray
FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

- PI 535236 donor id: TARS-011. origin: United States. other id:
MBACT. other id: PR 10463, PL-2. locality: Molino
Basin. remarks: Received through Russ Buhrow, Dept. of
Plant Sciences, College of Agriculture, University of
Arizona, Tucson, AZ 85721. Wild. Seed.
- PI 535237 donor id: TARS-012. origin: United States. other id: AZ
PL5. other id: PR 10464. locality: Santa Rita
Mountains. remarks: Received through Mr. Gary Nabhan,
Office of Arid Land Studies, University of Arizona, 845
Park N, Tucson, AZ 85719. Wild. Seed.

PI 535236 to 535270-continued

- PI 535238 donor id: TARS-013. origin: United States. other id: NI 692. other id: Buhrow SBAC. locality: Santa Rita Mountains. elevation: 2000m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535239 donor id: TARS-141. origin: United States. other id: NA13. remarks: Received through University of Cambridge, Pembroke St., Cambridge CB2 3DX, England. Wild. Seed.
- PI 535240 donor id: TARS-152. origin: UNKNOWN. other id: G-40077. remarks: Received through CIAT, Apatado 67-13, Cali, Colombia. Wild. Seed.
- PI 535241 donor id: TARS-153. origin: UNKNOWN. other id: G-40078. remarks: Received through CIAT, Apatado 67-13, Cali, Colombia. Wild. Seed.
- PI 535242 donor id: TARS-157. origin: Mexico. other id: NI 717. other id: Leroi NE 18. locality: 41 km S Durango. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535243 donor id: TARS-158. origin: Mexico. other id: NI 831. other id: Debouck 388. locality: Mezquital. elevation: 2110m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535244 donor id: TARS-159. origin: United States. other id: NI 700. other id: Buhrow MBAC. elevation: 1200m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535245 donor id: TARS-192. origin: United States. other id: L-124. locality: Portal. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535246 donor id: TARS-193. origin: United States. other id: L-137. locality: Tucson. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535247 donor id: TARS-194. origin: United States. other id: L-320. locality: Santa Cruz Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.

PI 535236 to 535270-continued

- PI 535248 donor id: TARS-230. origin: United States. other id: L-114. locality: Portal. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535249 donor id: TARS-231. origin: United States. other id: L-152. locality: Pima Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535250 donor id: TARS-232. origin: United States. other id: L-154. locality: Pima Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535251 donor id: TARS-233. origin: United States. other id: L-158. locality: Sta. Cruz Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535252 donor id: TARS-234. origin: United States. other id: L-163. locality: Pena Blanca Lake. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535253 donor id: TARS-235. origin: United States. other id: L-166. locality: H&Y Sp, Sta. Cruz Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535254 donor id: TARS-236. origin: United States. other id: L-466. locality: Graham Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535255 donor id: TARS-237. origin: United States. other id: L-469. locality: Graham Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535256 donor id: TARS-238. origin: United States. other id: L-477. locality: Graham Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535257 donor id: TARS-239. origin: United States. other id: L-123. locality: Cochise Co. remarks: Received through University of California, Riverside CA 92521. Wild. Seed.

PI 535236 to 535270-continued

- PI 535258 donor id: TARS-291. origin: United States. other id: AZ 3,PL. other id: PR 10466. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535259 donor id: TARS-292. origin: United States. other id: AZ 4,PL. other id: PR 10468. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535260 donor id: TARS-293. origin: United States. other id: AZ 4. other id: PR 10457. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535261 donor id: TARS-294. origin: United States. other id: AZ 5,PL. other id: PR 10475. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535262 donor id: TARS-295. origin: United States. other id: AZ 6,PL. other id: PR 10460. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535263 donor id: TARS-296. origin: United States. other id: AZ 7,PL. other id: PR 10472. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535264 donor id: TARS-297. origin: United States. other id: AZ 8. other id: PR 10473. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535265 donor id: TARS-298. origin: United States. other id: AZ 8. other id: PR 10465. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.

PI 535236 to 535270-continued

- PI 535266 donor id: TARS-299. origin: United States. other id: AZ 10. other id: PR 10470. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535267 donor id: TARS-300. origin: United States. other id: AZ 11. other id: PR 10471. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535268 donor id: TARS-301. origin: United States. other id: AZ 12. other id: PR 10467. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535269 donor id: TARS-304. origin: United States. other id: GN 743. other id: PR 10476. locality: Pima Co. remarks: Received through Mr. Gary Nabhan, Office of Arid Land Studies, University of Arizona, 845 Park N, Tucson, AZ 85719. Wild. Seed.
- PI 535270 donor id: TARS-330. origin: United States. other id: DRACT. locality: Dragoon Mtns. elevation: 1524m. remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. Wild. Seed.

PI 535271 to 535273. *Phaseolus angustissimus* A. Gray FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

- PI 535271 donor id: TARS-016. origin: United States. other id: NI 788. other id: Buhrow SCAN. locality: Sunset Crater. elevation: 2050m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2000 Gembloux, Belgium. Wild. Seed.
- PI 535272 donor id: TARS-166. origin: United States. other id: NI 878. other id: SAAN. locality: Organ Mts. elevation: 1500m. remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. Wild. Seed.
- PI 535273 donor id: TARS-329. origin: United States. other id: 84-2. locality: Organ Mts. elevation: 1500m. Wild. Seed.

PI 535274. *Phaseolus coccineus* L. FABACEAE Scarlet runner bean

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

donor id: TARS-038. **origin:** Mexico. **other id:** 81-4.
locality: Tres Marias. **elevation:** 2800m. **remarks:**
Received through USDA Field collecting trip-1981, TARS
personnel. **received as:** *Phaseolus striatus* var.
purpurascens. Cultivated. Seed.

PI 535275 to 535290. *Phaseolus coccineus* L. subsp. *coccineus* FABACEAE
Scarlet runner bean

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

PI 535275 **donor id:** TARS-032. **origin:** Mexico. **other id:** 81-8.
locality: Zongolica. **elevation:** 1800m. **remarks:**
Received through USDA Field collecting trip-1981, TARS
personnel. Cultivated. Seed.

PI 535276 **donor id:** TARS-034. **origin:** Mexico. **other id:** 81-19A&B.
locality: Chiquilistlan. **elevation:** 1630m. **remarks:**
Received through USDA Field collecting trip-1981, TARS
personnel. Mixed collection with *P. vulgaris*.
Cultivated. Seed.

PI 535277 **donor id:** TARS-039D. **origin:** Mexico. **other id:** 81-5.
locality: Texcoco. **elevation:** 2760m. **remarks:** Received
through USDA Field collecting trip-1981, TARS personnel.
Cultivated. Seed.

PI 535278 **donor id:** TARS-046A. **origin:** Mexico. **other id:** 81-9.
locality: Zongolica. **elevation:** 1800m. **remarks:**
Received through USDA Field collecting trip-1981, TARS
personnel. Cultivated. Seed.

PI 535279 **donor id:** TARS-188. **origin:** Guatemala. **other id:**
78-G-11. **locality:** From Castillo, Pat-Patz. **remarks:**
Received through Rolando Cojulun, 5A Av.1231, Zona 9,
Edif. El Cortez 2do y 3er Niveles, Guatemala.
Cultivated. Seed.

PI 535280 **donor id:** TARS-212. **origin:** Guatemala. **other id:**
78-G-4. **locality:** Crossroads Yepo-Duenos. **elevation:**
1980m. **remarks:** Received through Rolando Cojulun, 5A
Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles,
Guatemala. Cultivated. Seed.

PI 535275 to 535290-continued

- PI 535281 donor id: TARS-213. origin: Guatemala. other id: 78-G-5. locality: Top of hill, Parra-Yepo. elevation: 2025m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Cultivated. Seed.
- PI 535282 donor id: TARS-215. origin: Guatemala. other id: 78-G-8A. locality: Km 159 S.C.Laguna. elevation: 1910m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Cultivated. Seed.
- PI 535283 donor id: TARS-216. origin: Guatemala. other id: 78-G-9. locality: Hill to Godinez. elevation: 2310m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Cultivated. Seed.
- PI 535284 donor id: TARS-217. origin: Guatemala. other id: 78-G-10. locality: Hill to Godinez. elevation: 2310m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Cultivated. Seed.
- PI 535285 donor id: TARS-219. origin: Guatemala. other id: 78-G-12. locality: Jalapa-Miramundo. elevation: 2100m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Cultivated. Seed.
- PI 535286 donor id: TARS-221. origin: Guatemala. other id: 78-G-14. locality: Matague-S.J. elevation: 1950m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Cultivated. Seed.
- PI 535287 donor id: TARS-222. origin: Guatemala. other id: 78-G-15. locality: Road Volcan de Agua. elevation: 1940m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Cultivated. Seed.
- PI 535288 donor id: TARS-224. origin: Guatemala. other id: 78-G-17. locality: Totonicapan. elevation: 2490m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Cultivated. Seed.
- PI 535289 donor id: TARS-285. origin: Mexico. other id: Mor.667. other id: 7. locality: Cuer. km 67. elevation: 1800m. Cultivated. Seed.

PI 535275 to 535290-continued

PI 535290 donor id: TARS-286A. origin: Mexico. other id: Mor.664.
other id: VO. locality: Progreso. elevation: 1430m.
Cultivated. Seed.

PI 535291. *Phaseolus coccineus* subsp. *darwinianus* E. Hern. & Miranda
Colin FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

donor id: TARS-309. origin: Guatemala. other id:
78-G-6. locality: Semetabaj-Panaj. remarks: Received
through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El
Cortez 2do y 3er Niveles, Guatemala. received as:
Phaseolus dumosus. Cultivated. Seed.

PI 535292 to 535310. *Phaseolus filiformis* Benth. FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

PI 535292 donor id: TARS-047. origin: UNKNOWN. other id: NI 31.
other id: Kooistra, Wag. remarks: Received through Dr.
Merechal, Faculte des Sciences, Agronomiques de L'etat,
P2800 Gembloux, Belgium. Wild. Seed.

PI 535293 donor id: TARS-048. origin: Mexico. other id: NI 600.
other id: UC Berk 5930. remarks: Received through Dr.
Merechal, Faculte des Sciences, Agronomiques de L'etat,
P2800 Gembloux, Belgium. Wild. Seed.

PI 535294 donor id: TARS-049. origin: United States. other id: NI
689. other id: Buhrow RTWR. elevation: 1000m. remarks:
Received through Dr. Merechal, Faculte des Sciences,
Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild.
Seed.

PI 535295 donor id: TARS-050. origin: United States. other id: NI
690. other id: Buhrow ATWR. elevation: 550m. remarks:
Received through Dr. Merechal, Faculte des Sciences,
Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild.
Seed.

PI 535296 donor id: TARS-051. origin: Mexico. other id: BCFI.
other id: Nabhan. remarks: Received through Dr.
Merechal, Faculte des Sciences, Agronomiques de L'etat,
P2800 Gembloux, Belgium. Wild. Seed.

PI 535292 to 535310-continued

- PI 535297 donor id: TARS-054. origin: Mexico. other id: NI 859. other id: Nabhan. locality: 2 km from Miraflores. remarks: Received through Dr. Merechal, Faculte des Sciences, Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535298 donor id: TARS-055. origin: United States. other id: NI 960. other id: Buhrow OPWR. remarks: Received through Dr. Merechal, Faculte des Sciences, Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535299 donor id: TARS-116. origin: United States. other id: MITA 10474. locality: Silver Bell Mts. remarks: Received through Buss Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. Wild. Seed.
- PI 535300 donor id: TARS-117. origin: United States. other id: MITA 10461. other id: ATWR 4. locality: Canyon Lake. remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. Wild. Seed.
- PI 535301 donor id: TARS-143. origin: Czechoslovakia. other id: Fl. remarks: Received through University of Cambridge, Pembroke ST., Cambridge CB2 3DX, England. Wild. Seed.
- PI 535302 donor id: TARS-173. origin: United States. other id: NI 690. other id: ATWR. elevation: 550m. remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. Wild. Seed.
- PI 535303 donor id: TARS-253. origin: United States. other id: CL-297. locality: Yuma Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535304 donor id: TARS-254. origin: United States. other id: L-298. locality: Yuma Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535305 donor id: TARS-255. origin: United States. other id: L-301. locality: Yuma Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.
- PI 535306 donor id: TARS-256. origin: United States. other id: L-318. locality: Pima Co. remarks: Received through University of California, Riverside, CA 92521. Wild. Seed.

PI 535292 to 535310-continued

PI 535307 donor id: TARS-257. origin: Mexico. other id: L-319.
other id: Felger 18734. elevation: 150m. remarks:
Received through University of California, Riverside, CA
92521. Wild. Seed.

PI 535308 donor id: TARS-274. origin: United States. other id:
BRTWR. other id: PR 10474. locality: Silver Bell Mts.
remarks: Received through Mr. Gary Nabhan, Office of Arid
Lands Studies, University of Arizona 845 Park N, Tucson,
AZ 85719. Wild. Seed.

PI 535309 donor id: TARS-275. origin: United States. other id:
ATWR4. other id: 10461. locality: Canyon Lake. Wild.
Seed.

PI 535310 donor id: TARS-380. origin: UNKNOWN. other id:
Worthington6814. locality: El Paso. remarks: Received
through Russ Buhrow, Dept. Plant Sciences, College of
Agriculture, University of Arizona, Tucson, AZ 85721.
Wild. Seed.

PI 535311. *Phaseolus glabellus* Piper FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

donor id: TARS-413. origin: Mexico. other id: DGD 2075.
locality: Cd Maiz. elevation: 1150m. remarks: Received
through CIAT, Apartado 67-13, Cali, Colombia. received
as: *Phaseolus coccineus* subsp. *glabellus*. Wild. Seed.

PI 535312. *Phaseolus grayanus* Wooton & Standley FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

donor id: TARS-332. origin: United States. other id:
DRGR. locality: Dragoon Mtns. remarks: Received through
Russ Buhrow, Dept. Plant Sciences, Collge of Agriculture,
University of Arizona, Tucson, AZ 85721. Wild. Seed.

PI 535313. *Phaseolus jaliscanus* Piper FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

PI 535313-continued

donor id: TARS-320. **origin:** Mexico. **other id:** M21.
locality: 4.5 km S Tequila. **elevation:** 1950m. **remarks:**
Received through Russ Buhrow, Dept. Plant Sciences,
Collge of Agriculture, University of Arizona, Tucson, AZ
85721. Wild. Seed.

PI 535314 to 535337. *Phaseolus leptostachyus* Benth. FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

PI 535314 **donor id:** TARS-017. **origin:** Mexico. **other id:** 81-14.
locality: Km 7, Tehuacan. **elevation:** 1600m. **remarks:**
Received through USDA Field Collecting trip-1981, TARS
personnel. **received as:** *Phaseolus leptostachyus* var.
leptostachyus. Wild. Seed.

PI 535315 **donor id:** TARS-018. **origin:** Mexico. **other id:** 81-25.
locality: Piedra, Ancha. **elevation:** 2000m. **remarks:**
Received through USDA Field Collecting trip-1981, TARS
personnel. **received as:** *Phaseolus leptostachyus* var.
nanus. Wild. Seed.

PI 535316 **donor id:** TARS-019. **origin:** Mexico. **other id:** 81-27.
locality: Los Mazos. **elevation:** 1110m. **remarks:**
Received through USDA Field Collecting trip-1981, TARS
personnel. **received as:** *Phaseolus leptostachyus* var.
leptostachyus. Wild. Seed.

PI 535317 **donor id:** TARS-020. **origin:** Mexico. **other id:** 81-33.
locality: El Chante. **elevation:** 1040m. **remarks:**
Received through USDA Field Collecting trip-1981, TARS
personnel. **received as:** *Phaseolus leptostachyus* var.
leptostachyus. Wild. Seed.

PI 535318 **donor id:** TARS-021. **origin:** Mexico. **other id:** NI 353.
other id: Hernandez 224. **locality:** University Mexico
City, District Federal. **remarks:** Received through Dr. R.
Merechal, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. **received as:** *Phaseolus*
leptostachyus var. *leptostachyus*. Wild. Seed.

PI 535319 **donor id:** TARS-022. **origin:** Mexico. **other id:** NI 699.
other id: Debouck 365. **locality:** Corrales. **elevation:**
2165m. **remarks:** Received through Dr. R. Merechal,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. **received as:** *Phaseolus leptostachyus*
var. *leptostachyus*. Wild. Seed.

PI 535314 to 535337-continued

- PI 535320 donor id: TARS-023. origin: Mexico. other id: NI 710. other id: Debouck 410. locality: Durango. elevation: 2320m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535321 donor id: TARS-024. origin: Mexico. other id: NI 725. other id: Debouck 437. elevation: 1940m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535322 donor id: TARS-025. origin: Mexico. other id: NI 714A. other id: Debouck 369. locality: Corrales. elevation: 2250m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus leptostachyus var. incisus. Wild. Seed.
- PI 535323 donor id: TARS-155. origin: Mexico. other id: DGD-H423. elevation: 1250m. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535324 donor id: TARS-162. origin: Mexico. other id: NI 732. other id: Debouck 423. locality: Tepozal. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535325 donor id: TARS-163. origin: Mexico. other id: NI 743. other id: Debouck 480. locality: Cuautitlan. elevation: 660m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535326 donor id: TARS-174. origin: Mexico. other id: 78-M-39. locality: Oaxaca. elevation: 1750m. remarks: Received through USDA Field Collecting Trip-1978, TARS personnel. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535327 donor id: TARS-177. origin: Mexico. other id: 78-M-62. locality: Km 52, Oaxaca, Tehuacan. elevation: 1680m. remarks: Received through USDA Field Collecting Trip-1978, TARS personnel. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.

PI 535314 to 535337-continued

- PI 535328 donor id: TARS-178. origin: Mexico. other id: 78-M-64. locality: Km 63, Oaxaca, Tehuacan. elevation: 1680m. remarks: Received through USDA Field Collecting Trip-1978, TARS personnel. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535329 donor id: TARS-179. origin: Guatemala. other id: 78-G-29. locality: Km 124, San Pedro Pin. elevation: 1180m. remarks: Received through USDA Field Collecting Trip-1978, TARS personnel. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535330 donor id: TARS 182. origin: Guatemala. other id: 78-G-3B. locality: Km 24, San Pedro Pin. elevation: 1800m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535331 donor id: TARS 205. origin: Guatemala. other id: 78-G-29. locality: Km 124, San Pedro Pin. elevation: 1180m. remarks: Received through USDA Field Collecting Trip-1978, TARS personnel. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535332 donor id: TARS 206. origin: Mexico. other id: 78-M-39. locality: Km 6 Oax-Tehu. elevation: 1750m. remarks: Received through USDA Field Collecting Trip-1978, TARS personnel. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535333 donor id: TARS 270. origin: Mexico. other id: NI 353. other id: TARS Gen 76-2. locality: Univ. Guadal. remarks: Received through G. Le Marchand, Faculte des Sciences Agronomiques, 5800 Gembloux, Belgium. Wild. Seed.
- PI 535334 donor id: TARS 319. origin: Mexico. other id: M16. locality: Km 2088 Cerritos. remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.
- PI 535335 donor id: TARS 324. origin: Mexico. other id: M44. locality: E Navajoa, border between Chih. and Sonora. elevation: 1460m. remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. received as: Phaseolus leptostachyus var. leptostachyus. Wild. Seed.

PI 535314 to 535337-continued

PI 535336 donor id: TARS 324A. origin: Mexico. other id: M44.
locality: E Navajoa, border between Chih. and Sonora.
elevation: 1460m. remarks: Received through Russ Buhrow,
Dept. Plant Sciences, College of Agriculture, University
of Arizona, Tucson, AZ 85721. received as: Phaseolus
leptostachyus var. incisus. Wild. Seed.

PI 535337 donor id: TARS 325. origin: Mexico. other id: OT7282A.
locality: Pedregal, DF. elevation: 2240m. received as:
Phaseolus leptostachyus var. leptostachyus. Wild. Seed.

PI 535338 to 535348. Phaseolus lunatus L. FABACEAE Lima bean

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

PI 535338 donor id: TARS 061. origin: UNKNOWN. other id: 12497.
remarks: Received through CATIE, Turrialba, Costa Rica.
Cultivated. Seed.

PI 535339 donor id: TARS 063. origin: UNKNOWN. other id: NI 516.
other id: Smartt. remarks: Received through Dr. R.
Merechal, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. Cultivated. Seed.

PI 535340 donor id: TARS 064. origin: Mexico. other id: NI 543.
other id: A Evans, PS16. elevation: 20m. remarks:
Received through Dr. R. Merechal, Faculte des Sciences
Agronomiques de L'etat, P2800 Gembloux, Belgium.
Cultivated. Seed.

PI 535341 donor id: TARS 066. origin: Mexico. other id: NI 675.
other id: Johnson 285-73. locality: 5 km SE Sayulita.
remarks: Received through Dr. R. Merechal, Faculte des
Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium.
Cultivated. Seed.

PI 535342 donor id: TARS 067. origin: Mexico. other id: NI 738.
other id: Debouck 492. locality: Chichimuk. remarks:
Received through Dr. R. Merechal, Faculte des Sciences
Agronomiques de L'etat, P2800 Gembloux, Belgium.
Cultivated. Seed.

PI 535343 donor id: TARS 068. origin: Mexico. other id: NI 745.
other id: Debouck 453. locality: Zapotan. elevation:
1390m. remarks: Received through Dr. R. Merechal,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. Cultivated. Seed.

PI 535338 to 535348-continued

- PI 535344 donor id: TARS 069. origin: Argentina. other id: NI 814. other id: CIAT 93917. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Cultivated. Seed.
- PI 535345 donor id: TARS 147. origin: Czechoslovakia. other id: LEl. remarks: Received through University of Cambridge, Pembroke St., Cambridge CB2 3DX, England. Cultivated. Seed.
- PI 535346 donor id: TARS 189. origin: Venezuela. other id: VN29. remarks: Received through Venezuela. Cultivated. Seed.
- PI 535347 donor id: TARS 266. origin: UNKNOWN. other id: G 25220. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. Cultivated. Seed.
- PI 535348 donor id: TARS 443. origin: Costa Rica. other id: DGD 2103. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. Cultivated. Seed.

PI 535349. Phaseolus macrolepis Piper FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

donor id: TARS 130. origin: Guatemala. other id: B-1,B-2,B-3. other id: 78-G-8-B. locality: Km 159 Sta Cla Laguna. elevation: 1910m. remarks: Received through Rolando Cojulun, 5A Av.1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. Wild. Seed.

PI 535350. Phaseolus maculatus Scheele FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

donor id: TARS 333. origin: United States. other id: DRMT. locality: Dragoon Mtns. remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. Wild. Seed.

PI 535351. *Phaseolus micranthus* Hook. & Arn. FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

donor id: TARS 424. **origin:** Mexico. **other id:** M-28.
locality: 6.4-9.6 km E Tuito. **elevation:** 1000m.
remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. Wild. Seed.

PI 535352 to 535364. *Phaseolus microcarpus* C. Martius FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

PI 535352 **donor id:** TARS 078. **origin:** Mexico. **other id:** NI 703.
other id: Debouck 294. **locality:** Rodeo. **elevation:** 1390m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535353 **donor id:** TARS 080. **origin:** Mexico. **other id:** NI 709.
other id: Debouck 449. **locality:** Tonalá. **elevation:** 900m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535354 **donor id:** TARS 081. **origin:** Mexico. **other id:** NI 728.
other id: Debouck 478. **locality:** La Huerta. **elevation:** 380m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535355 **donor id:** TARS 082. **origin:** Mexico. **other id:** NI 733.
other id: Debouck 424. **locality:** La Huerta. **elevation:** 8m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535356 **donor id:** TARS 083. **origin:** Mexico. **other id:** NI 773.
other id: Debouck 392. **locality:** Mezquital. **elevation:** 1420m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535357 **donor id:** TARS 084. **origin:** Mexico. **other id:** NI 809.
other id: Debouck 389. **locality:** Madero. **elevation:** 2060m. **remarks:** Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535352 to 535364-continued

- PI 535358 donor id: TARS 085A. origin: Mexico. other id: 78-M-65.
locality: Km. 82, Rt. 190. elevation: 890m. remarks:
Received through USDA Field Collecting Trip-1978 TARS
personnel. Wild. Seed.
- PI 535359 donor id: TARS 086. origin: Mexico. other id: 78-M-69.
locality: Km. 163, Rt. 190. elevation: 600m. remarks:
Received through USDA Field Collecting Trip-1978 TARS
personnel. Wild. Seed.
- PI 535360 donor id: TARS 180. origin: Mexico. other id: 78-M-66.
locality: Km. 109, Oax-Tehuan. elevation: 780m.
remarks: Received through USDA Field Collecting Trip-1978
TARS personnel. Wild. Seed.
- PI 535361 donor id: TARS 181. origin: Mexico. other id: 78-M-70.
locality: KM. 177, Oax-Tehuan. elevation: 600m.
remarks: Received through USDA Field Collecting Trip-1978
TARS personnel. Wild. Seed.
- PI 535362 donor id: TARS 263. origin: Mexico. other id: DGD/H478.
other id: 78/144. locality: Huerta. elevation: 380m.
remarks: Received through CIAT, Apartado 67-13, Cali,
Colombia. Wild. Seed.
- PI 535363 donor id: TARS 264. origin: Mexico. other id: DGD/H389.
other id: NI 809. locality: Mezquital. elevation:
2060m. remarks: Received through CIAT, Apartado 67-13,
Cali, Colombia. Wild. Seed.
- PI 535364 donor id: TARS 464. origin: Mexico. other id: DGD 2339.
remarks: Received through CIAT, Apartado 67-13, Cali,
Colombia. Wild. Seed.

PI 535365. Phaseolus oligospermus Piper FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

donor id: TARS 101. origin: Guatemala. other id:
78-G-1. locality: Mw Twr, Sn J. Aca. elevation: 1500m.
remarks: Received through Rolando Cojulun, 5A Av.1231,
Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala.
Wild. Seed.

PI 535366. *Phaseolus parvulus* E. Greene FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

donor id: TARS 171. origin: United States. other id: BWPR. elevation: 2400m. remarks: Received through Russ Buhrow, Dept. Plant Sciences, College of Agriculture, University of Arizona, Tucson, AZ 85721. Wild. Seed.

PI 535367. *Phaseolus pedicellatus* Benth. FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

donor id: TARS 407. origin: Mexico. other id: DGD 2030. locality: Nicolas Flores. elevation: 2180m. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. Wild. Seed.

PI 535368 to 535369. *Phaseolus pluriflorus* Marechal et al. FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

PI 535368 donor id: TARS 091. origin: Mexico. other id: NI 869. other id: Debouck 320. locality: Durango. elevation: 2370m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535369 donor id: TARS 131. origin: Mexico. other id: 81-21-C. locality: La Calaverna. elevation: 2000m. remarks: Received through USDA Field collecting trip-1981, TARS personnel. Wild. Seed.

PI 535370 to 535371. *Phaseolus polystachios* (L.) Britton et al. var. *polystachios* FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

PI 535370 donor id: TARS 040. origin: Mexico. other id: NI 552. other id: AEvans NC 67. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.

PI 535370 to 535371-continued

PI 535371 donor id: TARS 127. origin: United States. locality: Hort. Farm, Gainesville. Wild. Seed.

PI 535372. *Phaseolus ritensis* M. E. Jones FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

donor id: TARS 095. origin: United States. other id: NI 796. other id: Buhrow GVRI. locality: Sta. Catalina Mts. elevation: 2000m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2000 Gembloux, Belgium. received as: *Phaseolus maculatus* subsp. *ritensis*. Wild. Seed.

PI 535373 to 535391. *Phaseolus* sp. FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

PI 535373 donor id: TARS 014. origin: Mexico. other id: NI 713. other id: Debouck 422. locality: El Tepozal. elevation: 1220m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2000 Gembloux, Belgium. received as: *Phaseolus parvifolius*. Wild. Seed.

PI 535374 donor id: TARS 015. origin: Mexico. other id: NI 812. other id: Debouck 390. locality: Mezquital. elevation: 1920m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2000 Gembloux, Belgium. received as: *Phaseolus parvifolius*. Wild. Seed.

PI 535375 donor id: TARS 052. origin: Mexico. other id: 81-13. locality: Mixes. elevation: 1680m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2000 Gembloux, Belgium. received as: *Phaseolus parvifolius*. Wild. Seed.

PI 535376 donor id: TARS 053. origin: Mexico. other id: 81-40. locality: Los Cuartos. elevation: 1420m. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2000 Gembloux, Belgium. received as: *Phaseolus parvifolius*. Wild. Seed.

PI 535373 to 535391-continued

- PI 535377 donor id: TARS 119A. origin: Mexico. other id: NI 707.
other id: Debouck 391. locality: Mezquital. elevation:
1940m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2000
Gembloux, Belgium. received as: Phaseolus hintonii.
Wild. Seed.
- PI 535378 donor id: TARS 120. origin: Mexico. other id: NI 716.
other id: Debouck 314. locality: Madero. elevation:
2130m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2000
Gembloux, Belgium. received as: Phaseolus magnilobatus.
Wild. Seed.
- PI 535379 donor id: TARS 121. origin: Mexico. other id: NI 806.
other id: Debouck 403. locality: Madero. elevation:
1950m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2000
Gembloux, Belgium. received as: Phaseolus magnilobatus.
Wild. Seed.
- PI 535380 donor id: TARS 132A. origin: Mexico. other id: 81-22.
locality: Veludero. elevation: 1650m. remarks: Received
through USDA Field collecting trip-1981, TARS personnel.
received as: Phaseolus hintonii. Wild. Seed.
- PI 535381 donor id: TARS 133. origin: Mexico. other id: 81-26.
locality: Mazos. elevation: 1110m. remarks: Received
through USDA Field collecting trip-1981, TARS personnel.
received as: Phaseolus hastatus. Wild. Seed.
- PI 535382 donor id: TARS 160. origin: Mexico. other id: NI 705.
other id: Debouck 413. locality: El Salto. elevation:
1970m. remarks: Received through Dr. R. Merechal,
Faculte des Sciences Agronomiques de L'etat, P2000
Gembloux, Belgium. received as: Phaseolus parvifolius.
Wild. Seed.
- PI 535383 donor id: TARS 268. origin: UNKNOWN. other id: G 40090.
remarks: Received through CIAT, Apartado 67-13, Cali,
Colombia. received as: Phaseolus parvifolius. Wild.
Seed.
- PI 535384 donor id: TARS 394. origin: Mexico. other id: DGD
2073A. locality: Cd. Maiz. elevation: 1170m. remarks:
Received through CIAT, Apartado 67-13, Cali, Colombia.
received as: Phaseolus zimapanensis. Wild. Seed.
- PI 535385 donor id: TARS 395. origin: Mexico. other id: DGD 2045.
locality: Ahuacatlan. elevation: 1430m. remarks:
Received through CIAT, Apartado 67-13, Cali, Colombia.
received as: Phaseolus zimapanensis. Wild. Seed.

PI 535373 to 535391-continued

- PI 535386 donor id: TARS 396. origin: Mexico. other id: DGD 2040. locality: Jacala. elevation: 1550m. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. received as: Phaseolus zimapanensis. Wild. Seed.
- PI 535387 donor id: TARS 398. origin: Mexico. other id: DGD 2049. locality: El Corrizal. elevation: 890m. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. received as: Phaseolus zimapanensis. Wild. Seed.
- PI 535388 donor id: TARS 399. origin: Mexico. other id: DGD 2047. locality: El Madrono. elevation: 1720m. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. received as: Phaseolus zimapanensis. Wild. Seed.
- PI 535389 donor id: TARS 400. origin: Mexico. other id: DGD 2063. locality: Cd. Victoria. elevation: 900m. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. received as: Phaseolus albiviolatus. Wild. Seed.
- PI 535390 donor id: TARS 426. origin: Mexico. other id: DGD 1522. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. received as: Phaseolus leucanthes. Wild. Seed.
- PI 535391 donor id: TARS 427. origin: Mexico. other id: DGD 1523. remarks: Received through CIAT, Apartado 67-13, Cali, Colombia. received as: Phaseolus altimontanus. Wild. Seed.

PI 535392 to 535403. Phaseolus vulgaris L. var. vulgaris FABACEAE
Common bean

Donated by: Freytag, G. F., Tropical Agriculture Research Station, USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21, 1989.

- PI 535392 donor id: TARS 112. origin: UNKNOWN. other id: NI 29. other id: Drufhout. remarks: Received through Dr. R. Merechel, Faculte des Sciences Agronomiques de L'etat, P2000 Gembloux, Belgium. Cultivated. Seed.
- PI 535393 donor id: TARS 113. origin: UNKNOWN. other id: NI 190. other id: Dr. Bannerot. remarks: Received through Dr. R. Merechel, Faculte des Sciences Agronomiques de L'etat, P2000 Gembloux, Belgium. Cultivated. Seed.
- PI 535394 donor id: TARS 115. origin: UNKNOWN. other id: 810119. remarks: Received through Dr. Eclco Drifjout, Inst. for Hort. Plant Breeding, Postbus 16,6700 AA Wageningen, Holland. Cultivated. Seed.

PI 535392 to 535403-continued

- PI 535395 donor id: TARS 144. origin: Mexico. other id: V-1441.
remarks: Received through University of Cambridge,
Pembroke St., Cambridge CB2 3DX, England. Cultivated.
Seed.
- PI 535396 donor id: TARS 145. origin: Mexico. other id: V-1436.
remarks: Received through University of Cambridge,
Pembroke St., Cambridge CB2 3DX, England. Cultivated.
Seed.
- PI 535397 donor id: TARS 146. origin: Mexico. other id: V-1435.
remarks: Received through University of Cambridge,
Pembroke St., Cambridge CB2 3DX, England. Cultivated.
Seed.
- PI 535398 donor id: TARS 148. origin: United States. other id: AB
5. remarks: Received through University of Cambridge,
Pembroke St., Cambridge CB2 3DX, England. Cultivated.
Seed.
- PI 535399 donor id: TARS 150. origin: UNKNOWN. other id: G-10004.
remarks: Received through CIAT, Apartado 67-13, Cali,
Colombia. Cultivated. Seed.
- PI 535400 donor id: TARS 151. origin: UNKNOWN. other id: G-00996.
remarks: Received through CIAT, Apartado 67-13, Cali,
Colombia. Cultivated. Seed.
- PI 535401 donor id: TARS 258. origin: UNKNOWN. Wild. Seed.
- PI 535402 donor id: TARS 259. origin: UNKNOWN. Cultivated. Seed.
- PI 535403 donor id: TARS 260. origin: UNKNOWN. Cultivated. Seed.

PI 535404 to 535451. *Phaseolus vulgaris* var. *aborigineus* (Burkart)
Baudet FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

- PI 535404 donor id: TARS 102. origin: Mexico. other id: NI 401.
other id: INIA. remarks: Received through Dr. R.
Merechal, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: *Phaseolus vulgaris*
var. *mexicanus*. Wild. Seed.

PI 535404 to 535451-continued

- PI 535405 donor id: TARS 103. origin: Mexico. other id: NI 404.
other id: INIA. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535406 donor id: TARS 104. origin: Mexico. other id: NI 4068.
remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535407 donor id: TARS 105. origin: Mexico. other id: NI 544.
other id: AEvans V1406. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535408 donor id: TARS 106. origin: Mexico. other id: NI 578.
other id: AEvans V1449. remarks: Received through Dr. R. Merechal, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535409 donor id: TARS 109. origin: Mexico. other id: 81-21A.
locality: Calaverna. elevation: 2000m. remarks: Received through USDA Field collecting trip-1981, TARS personnel. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535410 donor id: TARS 110. origin: Mexico. other id: 81-36.
locality: Manantlan. elevation: 1300m. remarks: Received through USDA Field collecting trip-1981, TARS personnel. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535411 donor id: TARS 111. origin: Peru. other id: NI 622.
other id: INIA. remarks: Received through Dr. R. Merechel, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535412 donor id: TARS 114. origin: Argentina. other id: NI 621.
other id: CIAT 10025. remarks: Received through Dr. R. Merechel, Faculte des Sciences Agronomiques de L'etat, P2800 Gembloux, Belgium. Wild. Seed.
- PI 535413 donor id: TARS 134. origin: Mexico. other id: 81-39.
locality: Los Cuartos. remarks: Received through USDA Field collecting trip-1981, TARS personnel. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.

PI 535404 to 535451-continued

- PI 535414 donor id: TARS 187. origin: Guatemala. other id: 78-G-3A. locality: Km 24 San Ped. Pin. remarks: Received through Rolando Cojulun 5A Av. 1231, Zona 9, Edif. El Cortez 2do y 3er Niveles, Guatemala. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535415 donor id: TARS 198. origin: Mexico. other id: 81-1. locality: Tepoztlan. elevation: 1900m. remarks: Received through USDA Field collecting trip-1981, TARS personnel. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535416 donor id: TARS 199. origin: Mexico. other id: 81-23. locality: Nev. Colima. elevation: 1920m. remarks: Received through USDA Field collecting trip-1981, TARS personnel. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535417 donor id: TARS 200. origin: Mexico. other id: 81-31. locality: El Chante. elevation: 900m. remarks: Received through USDA Field collecting trip-1981, TARS personnel. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535418 donor id: TARS 201. origin: Mexico. other id: 81-32. locality: El Chante. elevation: 1040m. remarks: Received through USDA Field collecting trip-1981, TARS personnel. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535419 donor id: TARS 202. origin: Mexico. other id: 81-34. locality: El Chante. elevation: 1300m. remarks: Received through USDA Field collecting trip-1981, TARS personnel. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535420 donor id: TARS 280. origin: Mexico. other id: X-T-3. other id: Hdez & Tapia. locality: 36 km S Durango. elevation: 1800m. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535421 donor id: TARS 281. origin: Mexico. other id: Silv. 3-5. other id: Silv.3-5 #50. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535422 donor id: TARS 282. origin: Mexico. other id: Silv.7. other id: Silv.7 #15 & 53. received as: Phaseolus vulgaris var. mexicanus. Wild. Seed.
- PI 535423 donor id: TARS 283. origin: Brazil. other id: Vieira, Vicosa. Wild. Seed.

PI 535404 to 535451-continued

- PI 535424 donor id: TARS 284. origin: Mexico. other id: Silv.11.
other id: Silv.11 #13 & 55. received as: Phaseolus
vulgaris var. mexicanus. Wild. Seed.
- PI 535425 donor id: TARS 308. origin: Mexico. other id: Silv.10.
received as: Phaseolus vulgaris var. mexicanus. Wild.
Seed.
- PI 535426 donor id: TARS 335. origin: Mexico. other id: NI 1052.
other id: Leroi Mex.55. locality: Xochitlan. elevation:
1750m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.
- PI 535427 donor id: TARS 336. origin: Mexico. other id: NI 1057.
other id: Leroi Mex.54. locality: Xochitlan. elevation:
1750m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.
- PI 535428 donor id: TARS 337. origin: Mexico. other id: NI 1059.
other id: Leroi Mex.81. locality: Tlalnepantla.
elevation: 1950m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535429 donor id: TARS 340. origin: Mexico. other id: NI 1065.
other id: Leroi Mex.78. locality: Amatlan. elevation:
1700m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.
- PI 535430 donor id: TARS 341. origin: Mexico. other id: NI 1067.
other id: Leroi Mex.142. locality: Tepoxtlan.
elevation: 1725m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535431 donor id: TARS 342. origin: Mexico. other id: NI 1070.
other id: Leroi Mex.127. locality: Tlacotepec.
elevation: 1800m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.

PI 535404 to 535451-continued

- PI 535432 donor id: TARS 343. origin: Mexico. other id: NI 1071.
other id: Leroi Mex.137. locality: Tepoztlan Cliff.
elevation: 1775m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535433 donor id: TARS 344. origin: Mexico. other id: NI 1072.
other id: Leroi Mex.123. locality: Tepoztlan-Yantepec
Rd. elevation: 1600m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535434 donor id: TARS 345. origin: Mexico. other id: NI 1073.
other id: Leroi Mex.114. locality: Puente Caporal.
elevation: 1250m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535435 donor id: TARS 346. origin: Mexico. other id: NI 1074.
other id: Leroi Mex.92. locality: Oacalco. elevation:
1250m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.
- PI 535436 donor id: TARS 347. origin: Mexico. other id: NI 1078.
other id: Leroi Mex.124. locality: Tepoztlan-Yantepec
Rd. elevation: 1600m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535437 donor id: TARS 348. origin: Mexico. other id: NI 1080.
other id: Leroi Mex.107. locality: Pantitla. elevation:
1350m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.
- PI 535438 donor id: TARS 349. origin: Mexico. other id: NI 1081.
other id: Leroi Mex.46. locality: San Andres de Cal.
elevation: 1400m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.

PI 535404 to 535451-continued

- PI 535439 donor id: TARS 350. origin: Mexico. other id: NI 1083.
other id: Leroi Mex.126. locality: Tepoztlan-Yantepec
Rd. elevation: 1450m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535440 donor id: TARS 351. origin: Mexico. other id: NI 1084.
other id: Leroi Mex.118. locality: Palo Grande.
elevation: 1550m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535441 donor id: TARS 352. origin: Mexico. other id: NI 1085.
other id: Leroi Mex.9. locality: Tepoxtlan. elevation:
1725m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.
- PI 535442 donor id: TARS 353. origin: Mexico. other id: NI 1086.
other id: Leroi Mex.48. locality: San Andres de Cal.
elevation: 1400m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535443 donor id: TARS 354. origin: Mexico. other id: NI 1087.
other id: Leroi Mex.47. locality: San Andres de Cal.
elevation: 1400m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535444 donor id: TARS 355. origin: Mexico. other id: NI 1088.
other id: Leroi Mex.79. locality: Amatlan. elevation:
1700m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.
- PI 535445 donor id: TARS 356. origin: Mexico. other id: NI 1089.
other id: Leroi Mex.80. locality: Tlalnepantla.
elevation: 1950m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.

PI 535404 to 535451-continued

- PI 535446 donor id: TARS 361. origin: Mexico. other id: NI 1098.
other id: Leroi Mex.139. locality: Tlalnepantla.
elevation: 1950m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535447 donor id: TARS 362. origin: Mexico. other id: NI 1100.
other id: Leroi Mex.52. locality: Sn Domingo.
elevation: 1900m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535448 donor id: TARS 363. origin: Mexico. other id: NI 1102.
other id: Leroi Mex.98. locality: Malinalco. elevation:
1850m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.
- PI 535449 donor id: TARS 364. origin: Mexico. other id: NI 1103.
other id: Leroi Mex.70. locality: Los Laureles.
elevation: 1750m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535450 donor id: TARS 366. origin: Mexico. other id: NI 1105.
other id: Leroi Mex.138. locality: Tepoxtlan Falaise.
elevation: 1775m. remarks: Received through Dr. R.
Merechel, Faculte des Sciences Agronomiques de L'etat,
P2800 Gembloux, Belgium. received as: Phaseolus vulgaris
var. mexicanus. Wild. Seed.
- PI 535451 donor id: TARS 368. origin: Mexico. other id: NI 1113.
other id: Leroi Mex.86. locality: Amatlan. elevation:
1700m. remarks: Received through Dr. R. Merechel,
Faculte des Sciences Agronomiques de L'etat, P2800
Gembloux, Belgium. received as: Phaseolus vulgaris var.
mexicanus. Wild. Seed.

PI 535452. Phaseolus xanthotrichus Piper FABACEAE

Donated by: Freytag, G. F., Tropical Agriculture Research Station,
USDA-ARS, P.O. Box 70, Mayaguez, Puerto Rico. Received February 21,
1989.

PI 535452-continued

donor id: TARS 375. **origin:** Guatemala. **other id:** DGD 1604. **locality:** Sta. Maria Jesus. **elevation:** 1900m. **remarks:** Received through Dr. Eclco Drifjout, Inst. for Hort. Plant Breeding, Postbus 16,6700 AA Wageningen, Holland. Wild. Seed.

PI 535453. *Chrysanthemum zawadskii* subsp. *latilobum* (Maxim.) Kitagawa
ASTERACEAE

Donated by: U.S. National Arboretum, USDA-ARS, Washington, D.C., United States. **remarks:** United Kingdom 1987 Collecting Elite Plants; Funded by Longwood Gardens, Inc., Alfred S. Martin Charitable Trust, and the New York Botanical Garden. Supported by Friends of The United States National Aboretum. Received July 26, 1989.

donor id: NA 59662. **origin:** United Kingdom. **origin institute:** Pershore College, Pershore, Gloucester, England. **cultivar:** PINK PROCESSION. **collected:** October 18, 1987. **collector:** S. G. March, D. Apps. **collector id:** UK 321. **other id:** Q 27016. **other id:** NA 59662. **remarks:** Plants about 51cm. tall. Plant and flower larger than *Chrysanthemum* 'Clara Curtis'. Received through Nicholas Dakin-Elliot. **received as:** *Chrysanthemum rubellum*. Cultivar. Plant.

PI 535454. *Triticum aestivum* L. POACEAE Common wheat

Donated by: Forsberg, R.A., Department of Agronomy, 1575 Linden Drive, University of Wisconsin, Madison, Wisconsin, United States. **remarks:** Developed by the Wisconsin Agricultural Experiment Station and released 17 October, 1988. Received August 18, 1989.

donor id: X1336-8. **origin:** United States. **cultivar:** MERRIMAC. **pedigree:** McNair Selection/4/2*Racine/3/Knox/2/BN10-1/H483a-3-1-5. **other id:** PVP 8900293. **source:** Pending. **group:** PVPO. **remarks:** Soft red stiff-strawed type with higher grain yield and test weight than Argee. Maturity late. Plant height tall. Straw strength good. Winter hardiness excellent. Improved disease resistance. Suitable for relative cool environments Milling and baking qualities excellent. **disease resistance:** Leaf and stem rusts. Moderate to bunt. Winter Annual. Cultivar. Seed.

PI 535455 to 535456. *Argyrolobium uniflorum* (Decne.) Jaub. & Spach
FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535455 donor id: TU-80-9. origin: Tunisia. collected: May 21, 1980. collector: W.L. Graves. collector id: TU-80-9. locality: Sandy, basic soil, 14.5km E of Gafsa on GP14. latitude: 34 deg. 26 min. N. longitude: 008 deg. 56 min. E. elevation: 300m. remarks: Rainfall 150mm. Wild. Seed.

PI 535456 donor id: TU-80-45. origin: Tunisia. collected: May 28, 1980. collector: W.L. Graves. collector id: TU-80-45. locality: Shallow, rocky, sandy, basic loam soil, 49km W of Kairouan toward Maktar on GP12. latitude: 35 deg. 38 min. N. longitude: 009 deg. 49 min. E. elevation: 700m. remarks: Rainfall 300mm. Wild. Seed.

PI 535457 to 535458. *Astragalus corrugatus* Bertol. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535457 donor id: TU-80-64. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-64. locality: Basic, rocky, sandy loam soil, 0.5km S of Thala on GP17. latitude: 35 deg. 33 min. N. longitude: 008 deg. 41 min. E. elevation: 1000m. remarks: Rainfall 450mm. received as: *Astragalus cruciatus*. Wild. Seed.

PI 535458 donor id: TU-80-94. origin: Tunisia. collected: June 03, 1980. collector: W.L. Graves. collector id: TU-80-94. locality: Shallow, rocky, sandy loam basic soil, 18.5km SW of Kassarine on GP17 near Bal Hejet. latitude: 35 deg. 06 min. N. longitude: 008 deg. 42 min. E. elevation: 600m. remarks: Rainfall 250mm. received as: *Astragalus cruciatus*. Wild. Seed.

PI 535459 to 535461. *Astragalus hamosus* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535459 to 535461-continued

- PI 535459 donor id: TU-80-39. origin: Tunisia. collected: May 27, 1980. collector: W.L. Graves. collector id: TU-80-39. locality: Basic, rocky, sandy loam soil, rocky outcrop S side of road, about 1.5km SE of Bou Chebka on GP15. latitude: 35 deg. 09 min. N. longitude: 008 deg. 27 min. E. elevation: 1200m. remarks: Rainfall 300mm. Wild. Seed.
- PI 535460 donor id: TU-80-63. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-63. locality: Basic, rocky, sandy loam soil, 0.5km S of Thala on GP17. latitude: 35 deg. 33 min. N. longitude: 008 deg. 41 min. E. elevation: 1000m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535461 donor id: TU-80-127. origin: Tunisia. collected: June 07, 1980. collector: W.L. Graves. collector id: TU-80-127. locality: Basic, clay loam soil, roadside about 3.5km W of Maktar on GP4. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 1000m. remarks: Rainfall 500mm. Wild. Seed.

PI 535462 to 535463. *Cenchrus ciliaris* L. POACEAE Buffelgrass

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535462 donor id: TU-80-137. origin: Tunisia. collector: W.L. Graves. collector id: TU-80-137. locality: Rocky, shallow, sandy loam basic soil, forest service land protected for seedling and range improvement, 7km NW of El Grine nursery, Kairovan Province. latitude: 35 deg. 50 min. N. longitude: 009 deg. 55 min. E. elevation: 100m. remarks: Rainfall 350mm. Wild. Seed.
- PI 535463 donor id: TU-80-151. origin: Tunisia. collected: June 11, 1980. collector: W.L. Graves. collector id: TU-80-151. locality: Sandy, basic soil, Sekhira village, 46km from Gabes, Gabes Province. latitude: 34 deg. 16 min. N. longitude: 010 deg. 04 min. E. elevation: 25m. remarks: Rainfall 150mm. Wild. Seed.

PI 535464 to 535467. *Dactylis glomerata* L. POACEAE Orchardgrass

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535464 to 535467-continued

PI 535464 donor id: TU-80-61. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-61. locality: Clay, basic soil, Swale N side of road, on dirt road to Haidra about 11.4km W of Thala. latitude: 35 deg. 38 min. N. longitude: 008 deg. 32 min. E. elevation: 900m. remarks: Rainfall 450mm. Wild. Seed.

PI 535465 donor id: TU-80-93. origin: Tunisia. collected: June 03, 1980. collector: W.L. Graves. collector id: TU-80-93. locality: Shallow, rocky, sandy loam basic soil, 18.5km SW of Kassarine on GP17, Bel Hejet. latitude: 35 deg. 06 min. N. longitude: 008 deg. 42 min. E. elevation: 600m. remarks: Rainfall 250mm. Wild. Seed.

PI 535466 donor id: TU-80-104. origin: Tunisia. collected: June 05, 1980. collector: W.L. Graves. collector id: TU-80-104. locality: Basic loam soil, near rocky fence 0.5km SW Maktar near junction GP4 to MC71. latitude: 35 deg. 48 min. N. longitude: 009 deg. 02 min. E. elevation: 600m. remarks: Rainfall 400mm. Wild. Seed.

PI 535467 donor id: TU-80-154. origin: Tunisia. collected: June 11, 1980. collector: W.L. Graves. collector id: TU-80-154. locality: Sandy loam, shallow, basic (large dirt pile) soil, W side of road in cactus planting, highway GP3, 31.5km N of Gafsa. latitude: 34 deg. 38 min. N. longitude: 008 deg. 58 min. E. elevation: 350m. remarks: Rainfall 150mm. Wild. Seed.

PI 535468 to 535469. *Digitaria bicornis* (Lam.) Roem. & Schult. POACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535468 donor id: TU-80-74. origin: Tunisia. collected: June 01, 1980. collector: W.L. Graves. collector id: TU-80-74. locality: Rocky, sandy, basic soil, turnoff 3km S of Hachichina (Sfax to Gabes Road) 48km W of GP1 on MC124 (Djebel Bou Hedma). latitude: 34 deg. 29 min. N. longitude: 009 deg. 39 min. E. elevation: 400m. remarks: Rainfall 150mm. received as: *Dactylis communata*. Wild. Seed.

PI 535468 to 535469-continued

PI 535469 donor id: TU-80-79. origin: Tunisia. collected: June 02, 1980. collector: W.L. Graves. collector id: TU-80-79. locality: Rocky, sandy loam, basic soil, Ain Cherichera 49km W of Kairouan to Maktar on GP12. latitude: 35 deg. 38 min. N. longitude: 009 deg. 49 min. E. elevation: 200m. remarks: Rainfall 300mm. received as: *Dactylis communata*. Wild. Seed.

PI 535470. *Ebenus pinnata* Aiton FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-82. origin: Tunisia. collected: June 02, 1980. collector: W.L. Graves. collector id: TU-80-82. locality: Shallow, rocky, sandy loam basic soil, 7km E of Kasserine to Sbeitla, GP13. latitude: 35 deg. 11 min. N. longitude: 008 deg. 55 min. E. elevation: 700m. remarks: Rainfall 300mm. Wild. Seed.

PI 535471. *Eragrostis papposa* (Roem. & Schult.) Steud. POACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-47. origin: Tunisia. collected: May 28, 1980. collector: W.L. Graves. collector id: TU-80-47. locality: Shallow, rocky, sandy loam basic soil, 49km W of Kairouan on GP12 toward Maktar. latitude: 35 deg. 38 min. N. longitude: 009 deg. 49 min. E. elevation: 700m. remarks: Rainfall 300mm. Wild. Seed.

PI 535472. *Hedysarum carnosum* Desf. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-46. origin: Tunisia. collected: May 28, 1980. collector: W.L. Graves. collector id: TU-80-46. locality: Shallow, rocky, sandy loam basic soil, 49km W of Kairouan on GP12 toward Maktar. latitude: 35 deg. 38 min. N. longitude: 009 deg. 49 min. E. elevation: 700m. remarks: Rainfall 300mm. Wild. Seed.

PI 535473. *Hedysarum coronarium* L. FABACEAE French honeysuckle

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-115. origin: Tunisia. collected: June 05, 1980. collector: W.L. Graves. collector id: TU-80-115. locality: Clay loam, basic calcareous soil, 12km W of Maktar on GP4. latitude: 35 deg. 49 min. N. longitude: 009 deg. 06 min. E. elevation: 800m. remarks: Rainfall 400mm. Wild. Seed.

PI 535474. *Hedysarum glomeratum* Dietr. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-114. origin: Tunisia. collected: June 05, 1980. collector id: TU-80-114. locality: Clay loam, basic calcareous soil, 12km W of Maktar on GP4. latitude: 36 deg. 26 min. N. longitude: 010 deg. 18 min. E. elevation: 200m. remarks: Rainfall 400mm. received as: *Hedysarum spiosissimum* var. *capitatum*. Wild. Seed.

PI 535475 to 535481. *Hedysarum spinosissimum* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535475 donor id: TU-80-7. origin: Tunisia. collected: May 21, 1980. collector: W.L. Graves. collector id: TU-80-7. locality: Sandy soil, basic, roadside on road to Sidi Bou Baker near Kef Derbi, 28km N of Gafsa on GP15. latitude: 34 deg. 38 min. N. longitude: 008 deg. 33 min. E. elevation: 400m. remarks: Rainfall 150mm. Wild. Seed.

PI 535476 donor id: TU-80-15. origin: Tunisia. collected: May 22, 1980. collector: W.L. Graves. collector id: TU-80-15. locality: Clay soil, 5km W of Le Kef Institute farm road. latitude: 36 deg. 11 min. N. longitude: 008 deg. 44 min. E. elevation: 800m. remarks: Rainfall 500mm. Wild. Seed.

PI 535477 donor id: TU-80-27. origin: Tunisia. collected: May 25, 1980. collector: W.L. Graves. collector id: TU-80-27. locality: Clay, loamy clay, calcareous, basic soil, 28.3km SW of Le Kef on GP17 to Tedjervine. latitude: 35 deg. 58 min. N. longitude: 008 deg. 35 min. E. elevation: 800m. remarks: Rainfall 500mm. Wild. Seed.

PI 535475 to 535481-continued

PI 535478 donor id: TU-80-31. origin: Tunisia. collected: May 26, 1980. collector: W.L. Graves. collector id: TU-80-31. locality: Clay, basic soil, 11.4km W of Thala on dirt road to Haidra. latitude: 35 deg. 38 min. N. longitude: 008 deg. 32 min. E. elevation: 900m. remarks: Rainfall 450mm. Wild. Seed.

PI 535479 donor id: TU-80-53. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-53. locality: Rocky sandy loam, basic soil, Forest Land (Sulla) 49km W of Kairouan ver Maktar, Ain Cherichera GP12. latitude: 35 deg. 38 min. N. longitude: 009 deg. 49 min. E. elevation: 200m. remarks: Rainfall 300mm. Wild. Seed.

PI 535480 donor id: TU-80-72. origin: Tunisia. collected: May 30, 1980. collector: W.L. Graves. collector id: TU-80-72. locality: Clay soil, dirt road, 8km W of Le Kef. latitude: 36 deg. 11 min. N. longitude: 008 deg. 44 min. E. elevation: 800m. remarks: Rainfall 500mm. Wild. Seed.

PI 535481 donor id: TU-80-122. origin: Tunisia. collector: W.L. Graves. collector id: TU-80-122. locality: Clay loam, basic soil, 13km NE Maktar GP4 to Siliana, N side of road. elevation: 700m. remarks: Rainfall 450mm. Soil pH. Wild. Seed.

PI 535482. *Hippocrepis scabra* DC. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-13. origin: Tunisia. collected: May 22, 1980. collector: W.L. Graves. collector id: TU-80-13. locality: Clay basic soil, 8km W of Le Kef Institute farm road. latitude: 36 deg. 11 min. N. longitude: 008 deg. 44 min. E. elevation: 800m. remarks: Rainfall 500mm. Wild. Seed.

PI 535483. *Hippocrepis* sp. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535483-continued

donor id: TU-80-85. **origin:** Tunisia. **collected:** June 03, 1980. **collector:** W.L. Graves. **collector id:** TU-80-85. **locality:** Basic, rocky outcrop, S side of road 1.5km SE of Bou Chebka on GP15. **latitude:** 35 deg. 09 min. N. **longitude:** 008 deg. 27 min. E. **elevation:** 1200m. **remarks:** Rainfall 300mm. Wild. Seed.

PI 535484. *Hyparrhenia hirta* (L.) Stapf POACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-161. **origin:** Tunisia. **collected:** June 11, 1980. **collector:** W.L. Graves. **collector id:** TU-80-161. **locality:** Rocky sandy loam, basic soil, Forest Land, 49km W of Kairouan ver Maktar, Ain Cherichera GP12, Kairouan Province. **latitude:** 35 deg. 38 min. N. **longitude:** 009 deg. 49 min. E. **elevation:** 200m. **remarks:** Rainfall 300mm. Wild. Seed.

PI 535485 to 535490. *Medicago ciliaris* (L.) All. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535485 **donor id:** TU-80-1. **origin:** Tunisia. **collected:** May 20, 1980. **collector:** W.L. Graves. **collector id:** TU-80-1. **locality:** Clay loam calcareous, basic soil, E side of road GP3 just S of Mohammedia. **latitude:** 36 deg. 40 min. N. **longitude:** 010 deg. 12 min. E. **elevation:** 100m. **remarks:** Rainfall 450mm. Wild. Seed.

PI 535486 **donor id:** TU-80-22. **origin:** Tunisia. **collected:** May 28, 1980. **collector:** W.L. Graves. **collector id:** TU-80-22. **locality:** Loam soil, Bruta farm, near Djougar GP3, SE 8km. **latitude:** 36 deg. 14 min. N. **longitude:** 010 deg. 08 min. E. **elevation:** 400m. **remarks:** Rainfall 450mm. Soil pH-8+. Wild. Seed.

PI 535487 **donor id:** TU-80-41. **origin:** Tunisia. **collected:** May 27, 1980. **collector:** W.L. Graves. **collector id:** TU-80-41. **locality:** Loamy clay, basic calcareous soil, Mrad Khaougi farm, approximately 12km W of Chaouat on GP7 between Tunis and Mateur. **latitude:** 36 deg. 57 min. N. **longitude:** 009 deg. 57 min. E. **elevation:** 200m. **remarks:** Rainfall 500mm. Wild. Seed.

PI 535485 to 535490-continued

PI 535488 donor id: TU-80-68. origin: Tunisia. collected: May 30, 1980. collector: W.L. Graves. collector id: TU-80-68. locality: Loamy clay soil, Roman ruins NE of Le Krib on GP5. latitude: 36 deg. 20 min. N. longitude: 009 deg. 10 min. E. elevation: 600m. remarks: Rainfall 500mm. Wild. Seed.

PI 535489 donor id: TU-80-107. origin: Tunisia. collected: June 05, 1980. collector: W.L. Graves. collector id: TU-80-107. locality: Clay loam to loam basic calcareous soil, 13.5km W of Maktar GP4. latitude: 35 deg. 48 min. N. longitude: 009 deg. 04 min. E. elevation: 750m. remarks: Rainfall 400mm. Wild. Seed.

PI 535490 donor id: TU-80-135. origin: Tunisia. collected: June 09, 1980. collector: W.L. Graves. collector id: TU-80-135. Wild. Seed.

PI 535491 to 535493. *Medicago doliata* Carmign. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535491 donor id: TU-80-106. origin: Tunisia. collected: June 05, 1980. collector: W.L. Graves. collector id: TU-80-106. locality: Clay loam, basic calcareous soil, 12km W of Maktar on GP4. latitude: 35 deg. 49 min. N. longitude: 009 deg. 06 min. E. elevation: 800m. remarks: Rainfall 400mm. Wild. Seed.

PI 535492 donor id: TU-80-119. origin: Tunisia. collected: June 08, 1980. collector: W.L. Graves. collector id: TU-80-119. locality: Clay loam, basic calcareous soil, 11.5km NE of Siliana on GP4. latitude: 36 deg. 00 min. N. longitude: 009 deg. 17 min. E. elevation: 400m. remarks: Rainfall 450mm. Wild. Seed.

PI 535493 donor id: TU-80-147. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta (INRAT). origin institute id: Donor no. 71085. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-147. Wild. Seed.

PI 535494 to 535496. *Medicago laciniata* (L.) Miller FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535494 to 535496-continued

- PI 535494 donor id: TU-80-3. origin: Tunisia. collected: May 21, 1980. collector: W.L. Graves. collector id: TU-80-3. locality: Shallow rocky sandy loam, basic soil, 7km E of Kasserine on road to Sbeitla, GP13. latitude: 35 deg. 11 min. N. longitude: 008 deg. 55 min. E. elevation: 700m. remarks: Rainfall 350mm. Wild. Seed.
- PI 535495 donor id: TU-80-6. origin: Tunisia. collected: May 21, 1980. collector: W.L. Graves. collector id: TU-80-6. locality: Rocky sandy loam, basic soil, S of Feriana on GP15, 35km S of Kasserine. latitude: 34 deg. 55 min. N. longitude: 008 deg. 33 min. E. elevation: 700m. remarks: Rainfall 200mm. Wild. Seed.
- PI 535496 donor id: TU-80-38. origin: Tunisia. collected: May 27, 1980. collector: W.L. Graves. collector id: TU-80-38. locality: Rocky sandy loam, basic soil, in cactus planting between highway and railroad, 35km S of Kasserine, S of Feriana on GP15. latitude: 34 deg. 55 min. N. longitude: 008 deg. 33 min. E. elevation: 700m. remarks: Rainfall 200mm. Wild. Seed.

PI 535497 to 535498. *Medicago littoralis* Rohde ex Lois. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535497 donor id: TU-80-4. origin: Tunisia. collected: May 21, 1980. collector: W.L. Graves. collector id: TU-80-4. locality: Shallow rocky sandy loam, basic soil, 7km E of Kasserine on road to Sbeitla on GP13. latitude: 35 deg. 11 min. N. longitude: 008 deg. 55 min. E. elevation: 700m. remarks: Rainfall 350mm. Wild. Seed.
- PI 535498 donor id: TU-80-124. origin: Tunisia. collected: June 07, 1980. collector: W.L. Graves. collector id: TU-80-124. locality: Basic clay loam soil, roadside, 3.5km W of Maktar on GP4. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 1000m. remarks: Rainfall 500mm. Wild. Seed.

PI 535499 to 535508. *Medicago minima* (L.) Bartal. FABACEAE Little burclover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535499 to 535508-continued

- PI 535499 donor id: TU-80-8. origin: Tunisia. collected: May 21, 1980. collector: W.L. Graves. collector id: TU-80-8. locality: Sandy, basic soil, road to Sidi Aich E of Gafsa off GP3. latitude: 34 deg. 39 min. N. longitude: 008 deg. 52 min. E. elevation: 400m. remarks: Rainfall 150mm. Wild. Seed.
- PI 535500 donor id: TU-80-33. origin: Tunisia. collected: May 26, 1980. collector: W.L. Graves. collector id: TU-80-33. locality: Clay, basic soil, dirt road to Haidra, 11.4 km W of Thala. latitude: 35 deg. 38 min. N. longitude: 008 deg. 32 min. E. elevation: 900m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535501 donor id: TU-80-35. origin: Tunisia. collected: May 26, 1980. collector: W.L. Graves. collector id: TU-80-35. locality: Basic shallow sandy loam to clay loam soil, in sink, 38.5km N of Kasserine near bridge, E side of highway on GP17. latitude: 35 deg. 27 min. N. longitude: 008 deg. 56 min. E. elevation: 900m. remarks: Rainfall 400mm. Wild. Seed.
- PI 535502 donor id: TU-80-42. origin: Tunisia. collected: May 28, 1980. collector: W.L. Graves. collector id: TU-80-42. locality: Shallow rocky sandy loam soil, 7km E of Kasserine on GP13 to Sbeitla. latitude: 35 deg. 11 min. N. longitude: 008 deg. 55 min. E. elevation: 700m. remarks: Rainfall 300mm. Wild. Seed.
- PI 535503 donor id: TU-80-55. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-55. locality: Clay loam to loam, basic, calcareous soil, 13.5km W of Maktar on GP4. latitude: 35 deg. 48 min. N. longitude: 009 deg. 04 min. E. elevation: 750m. remarks: Rainfall 400mm. Wild. Seed.
- PI 535504 donor id: TU-80-57. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-57. locality: Basic clay loam soil, roadside, 3.5km W of Maktar on GP4. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 1000m. remarks: Rainfall 500mm. Wild. Seed.
- PI 535505 donor id: TU-80-59. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-59. locality: Clay loam, basic, calcareous soil, 11.5km NE of Siliana on GP4. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 400m. remarks: Rainfall 400mm. Wild. Seed.

PI 535499 to 535508-continued

PI 535506 donor id: TU-80-69. origin: Tunisia. collected: May 30, 1980. collector: W.L. Graves. collector id: TU-80-69. locality: Clay soil, dirt road to Le Kef Institute Farm, 8km W of Le Kef. latitude: 36 deg. 11 min. N. longitude: 008 deg. 44 min. E. elevation: 800m. remarks: Rainfall 500mm. Wild. Seed.

PI 535507 donor id: TU-80-88. origin: Tunisia. collected: June 03, 1980. collector: W.L. Graves. collector id: TU-80-88. locality: Basic, rocky soil, outcrop, S side of road, 1.5km SE of Bou Chebkai on GP15. latitude: 35 deg. 09 min. N. longitude: 008 deg. 27 min. E. elevation: 1200m. remarks: Rainfall 300mm. Wild. Seed.

PI 535508 donor id: TU-80-103. origin: Tunisia. collected: June 04, 1980. collector: W.L. Graves. collector id: TU-80-103. locality: Rocky hillside, basic, rocky sandy loam to clay loam soil, 0.5km S of Thala GP17. latitude: 35 deg. 33 min. N. longitude: 008 deg. 41 min. E. elevation: 1000m. remarks: Rainfall 450mm. Wild. Seed.

PI 535509. *Medicago murex* Willd. FABACEAE

Donated by: Graves, W.L., Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-149. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 75080. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-149. Wild. Seed.

PI 535510 to 535518. *Medicago orbicularis* (L.) Bartal. FABACEAE
Buttonclover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535510 donor id: TU-80-16. origin: Tunisia. collected: May 22, 1980. collector: W.L. Graves. collector id: TU-80-16. locality: Loamy basic clay soil, Roman ruins NE of Le Krib GP5. latitude: 36 deg. 20 min. N. longitude: 009 deg. 10 min. E. elevation: 600m. remarks: Rainfall 500mm. Wild. Seed.

PI 535510 to 535518-continued

- PI 535511 donor id: TU-80-54. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-54. locality: Clay loam to loam, basic calcareous soil, 13.5km W of Maktar on GP4. latitude: 35 deg. 48 min. N. longitude: 009 deg. 04 min. E. elevation: 750m. remarks: Rainfall 400mm. Wild. Seed.
- PI 535512 donor id: TU-80-58. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-58. locality: Clay loam basic, calcareous soil, 11.5km NE of Siliana on GP4. latitude: 36 deg. 00 min. N. longitude: 009 deg. 17 min. E. elevation: 400m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535513 donor id: TU-80-89. origin: Tunisia. collected: June 03, 1980. collector: W.L. Graves. collector id: TU-80-89. locality: Basic, rocky, overcrop S side of road, 1.5km SE of Bou Chebkai on GP15. latitude: 35 deg. 09 min. N. longitude: 008 deg. 27 min. E. elevation: 1200m. remarks: Rainfall 300mm. Wild. Seed.
- PI 535514 donor id: TU-80-102. origin: Tunisia. collected: June 04, 1980. collector: W.L. Graves. collector id: TU-80-102. locality: Basic rocky sandy loam to clay loam soil, 0.5km S of Thala on GP17. latitude: 35 deg. 33 min. N. longitude: 008 deg. 41 min. E. elevation: 1000m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535515 donor id: TU-80-126. origin: Tunisia. collected: June 07, 1980. collector: W.L. Graves. collector id: TU-80-126. locality: Basic clay loam soil, roadside 3.5km W of Maktar on GP4. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 1000m. remarks: Rainfall 500mm. Wild. Seed.
- PI 535516 donor id: TU-80-145. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 73007. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-145. Wild. Seed.
- PI 535517 donor id: TU-80-146. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 71084. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-146. Wild. Seed.
- PI 535518 donor id: TU-80-153. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 73002. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-153. Wild. Seed.

PI 535519 to 535532. *Medicago polymorpha* L. FABACEAE California
burclover

Donated by: Graves, W.L., University of California, Building 4, 5555
Overland Avenue, San Diego, California, United States. Received May
23, 1988.

PI 535519 **donor id:** TU-80-2. **origin:** Tunisia. **collected:** May 21,
1980. **collector:** W.L. Graves. **collector id:** TU-80-2.
locality: Loam, basic soil, roadside sink 5km N of Sbikha
on GP3. **latitude:** 35 deg. 58 min. N. **longitude:** 010
deg. 31 min. E. **elevation:** 100m. **remarks:** Rainfall
350mm. Soil pH-8+. Wild. Seed.

PI 535520 **donor id:** TU-80-11. **origin:** Tunisia. **collected:** May 22,
1980. **collector:** W.L. Graves. **collector id:** TU-80-11.
locality: Clay basic soil, old dirt road, 8km W of Le Kef
Institute Farm. **latitude:** 36 deg. 11 min. N. **longitude:**
008 deg. 44 min. E. **elevation:** 800m. **remarks:** Rainfall
500mm. Wild. Seed.

PI 535521 **donor id:** TU-80-12. **origin:** Tunisia. **collected:** May 22,
1980. **collector:** W.L. Graves. **collector id:** TU-80-12.
locality: Clay basic soil, 8km W of Le Kef Institute Farm
Road. **latitude:** 36 deg. 11 min. N. **longitude:** 008 deg.
44 min. E. **elevation:** 800m. **remarks:** Rainfall 500mm.
Wild. Seed.

PI 535522 **donor id:** TU-80-17. **origin:** Tunisia. **collected:** May 22,
1980. **collector:** W.L. Graves. **collector id:** TU-80-17.
locality: Loamy, basic clay soil, Roman ruins near Le
Krib on GP5. **latitude:** 36 deg. 20 min. N. **longitude:**
009 deg. 10 min. E. **elevation:** 600m. **remarks:** Rainfall
500mm. Wild. Seed.

PI 535523 **donor id:** TU-80-19. **origin:** Tunisia. **collected:** May 23,
1980. **collector:** W.L. Graves. **collector id:** TU-80-19.
locality: Clay loam calcareous, basic soil, E side of
road on GP3, just S of Mohammedia. **latitude:** 36 deg. 40
min. N. **longitude:** 010 deg. 12 min. E. **elevation:** 100m.
remarks: Rainfall 450mm. Wild. Seed.

PI 535524 **donor id:** TU-80-20. **origin:** Tunisia. **collected:** May 23,
1980. **collector:** W.L. Graves. **collector id:** TU-80-20.
locality: Clay loam calcareous, basic soil, E side of
road on GP3, just S of Mohammedia. **latitude:** 36 deg. 40
min. N. **longitude:** 010 deg. 12 min. E. **elevation:** 100m.
remarks: Rainfall 450mm. Wild. Seed.

PI 535519 to 535532-continued

- PI 535525 donor id: TU-80-21. origin: Tunisia. collected: May 24, 1980. collector: W.L. Graves. collector id: TU-80-21. locality: M.F. Djougar, turn off S road, 8km SE of Bruta Ferme-Djougar on GP3. latitude: 36 deg. 14 min. N. longitude: 010 deg. 08 min. E. elevation: 400m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535526 donor id: TU-80-25. origin: Tunisia. collected: May 25, 1980. collector: W.L. Graves. collector id: TU-80-25. locality: Clay, loamy clay, calcareous basic soil, GP17 NW of Tedjerouine, 28km SW of Le Kef. latitude: 35 deg. 58 min. N. longitude: 008 deg. 35 min. E. elevation: 800m. remarks: Rainfall 500mm. Soil pH-8+ (Esparta grass site). Wild. Seed.
- PI 535527 donor id: TU-80-97. origin: Tunisia. collected: June 04, 1980. collector: W.L. Graves. collector id: TU-80-97. locality: Shallow, basic sandy loam to clay loam soil in sink, near bridge E side of highway, 38.5km N of Kasserine. latitude: 35 deg. 27 min. N. longitude: 008 deg. 56 min. E. elevation: 900m. remarks: Rainfall 400mm. Wild. Seed.
- PI 535528 donor id: TU-80-101. origin: Tunisia. collected: June 04, 1980. collector: W.L. Graves. collector id: TU-80-101. locality: Basic, rocky sandy loam to clay loam soil, 0.5km S of Thala on GP17. latitude: 35 deg. 33 min. N. longitude: 008 deg. 41 min. E. elevation: 1000m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535529 donor id: TU-80-105. origin: Tunisia. collected: June 05, 1980. collector: W.L. Graves. collector id: TU-80-105. locality: Clay loam to loam basic calcareous soil, 13.5km W of Maktar on GP4. latitude: 35 deg. 48 min. N. longitude: 009 deg. 04 min. E. elevation: 750m. remarks: Rainfall 400mm. Wild. Seed.
- PI 535530 donor id: TU-80-117. origin: Tunisia. collected: June 06, 1980. collector: W.L. Graves. collector id: TU-80-117. locality: Clay loam, basic calcareous soil, 11.5km NE of Siliana on GP4. latitude: 36 deg. 00 min. N. longitude: 009 deg. 17 min. E. elevation: 400m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535531 donor id: TU-80-143. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 71083. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-143. Wild. Seed.

PI 535519 to 535532-continued

PI 535532 donor id: TU-80-144. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 75088. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-144. Wild. Seed.

PI 535533 to 535538. *Medicago rugosa* Desr. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535533 donor id: TU-80-67. origin: Tunisia. collected: May 30, 1980. collector: W.L. Graves. collector id: TU-80-67. locality: Loamy, basic clay soil, Roman ruins 0.5km NE of Le Krib on GP5. latitude: 36 deg. 20 min. N. longitude: 009 deg. 10 min. E. elevation: 600m. remarks: Rainfall 500mm. Wild. Seed.

PI 535534 donor id: TU-80-100. origin: Tunisia. collected: June 04, 1980. collector: W.L. Graves. collector id: TU-80-100. locality: Basic, rocky sandy loam to clay loam soil, 0.5km S of Thala on GP17. latitude: 35 deg. 33 min. N. longitude: 008 deg. 41 min. E. elevation: 1000m. remarks: Rainfall 450mm. Wild. Seed.

PI 535535 donor id: TU-80-108. origin: Tunisia. collected: June 05, 1980. collector: W.L. Graves. collector id: TU-80-108. locality: Clay loam to loam basic calcareous soil, 13.5km W of Maktar on GP4. latitude: 35 deg. 48 min. N. longitude: 009 deg. 04 min. E. elevation: 750m. remarks: Rainfall 400mm. Wild. Seed.

PI 535536 donor id: TU-80-118. origin: Tunisia. collected: June 06, 1980. collector: W.L. Graves. collector id: TU-80-118. locality: Clay loam, basic calcareous soil, 11.5km NE of Siliana on GP4. latitude: 36 deg. 00 min. N. longitude: 009 deg. 17 min. E. elevation: 400m. remarks: Rainfall 450mm. Wild. Seed.

PI 535537 donor id: TU-80-125. origin: Tunisia. collected: June 07, 1980. collector: W.L. Graves. collector id: TU-80-125. locality: Basic clay loam soil, roadside, 3.5km W of Maktar on GP4. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 1000m. remarks: Rainfall 500mm. Wild. Seed.

PI 535533 to 535538-continued

PI 535538 donor id: TU-80-148. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 76017. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-148. Wild. Seed.

PI 535539 to 535540. *Medicago sativa* nsubsp. *tunetana* Murb. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535539 donor id: TU-80-112. origin: Tunisia. collected: June 05, 1980. collector: W.L. Graves. collector id: TU-80-112. locality: Clay loam to loam basic calcareous soil, 13.5km W of Maktar on GP4. latitude: 35 deg. 48 min. N. longitude: 009 deg. 04 min. E. elevation: 750m. remarks: Rainfall 400. received as: *Medicago sativa* var. *tunetana*. Wild. Seed.

PI 535540 donor id: TU-80-131. origin: Tunisia. collected: June 08, 1981. collector: W.L. Graves. collector id: TU-80-131. locality: Basic shallow sandy loam to clay loam soil in sink, near bridge, E side of highway GP17, 38.5km N of Kasserine. latitude: 35 deg. 27 min. N. longitude: 008 deg. 56 min. E. elevation: 900m. remarks: Rainfall 400mm. received as: *Medicago tunetana*. Wild. Seed.

PI 535541 to 535542. *Medicago scutellata* (L.) Miller FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535541 donor id: TU-80-155. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: No. 71086. collected: June 10, 1980. collector: Mr. Seklani's. collector id: TU-80-155. Wild. Seed.

PI 535542 donor id: TU-80-156. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: No. 71082. collected: June 10, 1980. collector: Mr. Seklani's. collector id: TU-80-156. Wild. Seed.

PI 535543 to 535554. *Medicago truncatula* Gaertner FABACEAE
Barrelclover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535543 donor id: TU-80-10. origin: Tunisia. collected: May 22, 1980. collector: W.L. Graves. collector id: TU-80-10. locality: Clay soil, roadside, old dirt road, Le Kef Institute from Kef W 8km. latitude: 36 deg. 11 min. N. longitude: 008 deg. 44 min. E. elevation: 800m. remarks: Rainfall 500mm. Wild. Seed.
- PI 535544 donor id: TU-80-18. origin: Tunisia. collected: May 22, 1980. collector: W.L. Graves. collector id: TU-80-18. locality: Loamy, basic clay soil, Roman ruins, 0.5km NE of Le Krib on GP5. latitude: 36 deg. 20 min. N. longitude: 009 deg. 10 min. E. elevation: 600m. remarks: Rainfall 500mm. Wild. Seed.
- PI 535545 donor id: TU-80-30. origin: Tunisia. collected: May 25, 1980. collector: W.L. Graves. collector id: TU-80-30. locality: Clay, basic soil, on dirt road to Haidra, swale N side of road, 11.4km W of Thala. latitude: 35 deg. 38 min. N. longitude: 008 deg. 32 min. E. elevation: 900m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535546 donor id: TU-80-36. origin: Tunisia. collected: May 26, 1980. collector: W.L. Graves. collector id: TU-80-36. locality: Basic, shallow sandy loam to clay loam soil in sink, near bridge E side of highway on GP17, 38.5km N of Kasserine. latitude: 35 deg. 27 min. N. longitude: 008 deg. 56 min. E. elevation: 900m. remarks: Rainfall 400mm. Wild. Seed.
- PI 535547 donor id: TU-80-40. origin: Tunisia. collected: May 27, 1980. collector: W.L. Graves. collector id: TU-80-40. locality: Loamy clay, basic, calcareous soil, Mateur Mrad Khaoughi farm, 12km W of Chaouat on GP7. latitude: 36 deg. 57 min. N. longitude: 009 deg. 57 min. E. elevation: 200m. remarks: Rainfall 500mm. Wild. Seed.
- PI 535548 donor id: TU-80-56. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-56. locality: Clay loam to loam soil, 13.5km W of Maktar on GP4. latitude: 35 deg. 48 min. N. longitude: 009 deg. 04 min. E. elevation: 750m. remarks: Rainfall 400mm. Wild. Seed.

PI 535543 to 535554-continued

- PI 535549 donor id: TU-80-60. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-60. locality: Clay loam , basic calcareous soil, 11.5km NE of Siliana GP4. latitude: 36 deg. 00 min. N. longitude: 009 deg. 17 min. E. elevation: 400m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535550 donor id: TU-80-90. origin: Tunisia. collected: June 03, 1980. collector: W.L. Graves. collector id: TU-80-90. locality: Basic soil, rocky outcrop, S side of road, 1.5km SE of Bou Chebka on GP15. latitude: 35 deg. 09 min. N. longitude: 008 deg. 27 min. E. elevation: 1200m. remarks: Rainfall 300mm. Wild. Seed.
- PI 535551 donor id: TU-80-134. origin: Tunisia. collected: June 09, 1980. collector: W.L. Graves. collector id: TU-80-134. locality: Loamy clay, calcareous basic soil, 28.3km SW of Le Kef on GP17, Le Kef Province. latitude: 35 deg. 58 min. N. longitude: 008 deg. 35 min. E. elevation: 800m. remarks: Rainfall 500mm. Wild. Seed.
- PI 535552 donor id: TU-80-136. origin: Tunisia. collected: June 09, 1980. collector: W.L. Graves. collector id: TU-80-136. locality: Basic, rocky sandy loam to clay loam soil, rocky hillside just S of Thala on GP17. latitude: 35 deg. 33 min. N. longitude: 008 deg. 41 min. E. elevation: 1000m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535553 donor id: TU-80-141. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 71082. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-141. Wild. Seed.
- PI 535554 donor id: TU-80-142. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 75086. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-142. Wild. Seed.

PI 535555. *Medicago turbinata* (L.) All. FABACEAE Medic

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535555-continued

donor id: TU-80-157. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 71081. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-157. Wild. Seed.

PI 535556 to 535559. *Oryzopsis miliacea* (L.) Benth. & Hook. POACEAE
Smilgrass

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535556 donor id: TU-80-84. origin: Tunisia. collector: W.L. Graves. collector id: TU-80-84. locality: Shallow rocky sandy loam, basic soil, 7km E of Kasserine on road to Sbeitla. latitude: 35 deg. 11 min. N. longitude: 008 deg. 55 min. E. elevation: 700m. remarks: Rainfall 300mm. Wild. Seed.

PI 535557 donor id: TU-80-129. origin: Tunisia. collected: June 07, 1980. collector: W.L. Graves. collector id: TU-80-129. locality: Rocky shallow sandy loam, basic soil, Ousseltia (INRAT Station) 57km W from Kairouan on C99. latitude: 35 deg. 49 min. N. longitude: 009 deg. 37 min. E. elevation: 500m. remarks: Rainfall 400mm. Wild. Seed.

PI 535558 donor id: TU-80-130. origin: Tunisia. collected: June 07, 1980. collector: W.L. Graves. collector id: TU-80-130. locality: Rocky shallow sandy loam, basic soil, on forest service land protected for seedling and range improvement, 7km NW of El Grine nursery, Kairouan Province. latitude: 35 deg. 50 min. N. longitude: 009 deg. 55 min. E. elevation: 100m. remarks: Rainfall 350mm. Wild. Seed.

PI 535559 donor id: TU-80-132. origin: Tunisia. collected: June 08, 1980. collector: W.L. Graves. collector id: TU-80-132. locality: Rocky sandy, basic soil, near Roman ruin just N of Feriana on highway GP15, 34km S of Kasserine, Kasserine Province. latitude: 34 deg. 57 min. N. longitude: 008 deg. 35 min. E. elevation: 700m. remarks: Rainfall 200mm. Wild. Seed.

PI 535560. *Phalaris aquatica* L. POACEAE Harding grass

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535560-continued

donor id: TU-80-152. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-152. received as: *Phalaris tuberosa*. Wild. Seed.

PI 535561 to 535562. *Phalaris truncata* Guss. POACEAE Forgrass

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535561 donor id: TU-80-34. origin: Tunisia. collected: May 26, 1980. collector: W.L. Graves. collector id: TU-80-34. locality: Clay basic soil, on dirt road to Haidra 11.4km W of Thala. latitude: 35 deg. 38 min. N. longitude: 008 deg. 32 min. E. elevation: 900m. remarks: Rainfall 450mm. Wild. Seed.

PI 535562 donor id: TU-80-158. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). origin institute id: Donor no. 75042. collected: June 10, 1980. collector: Mr. Seklani. collector id: TU-80-158. Wild. Seed.

PI 535563 to 535565. *Scorpiurus muricatus* L. var. *muricatus* FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535563 donor id: TU-80-14. origin: Tunisia. collected: May 22, 1980. collector: W.L. Graves. collector id: TU-80-14. locality: Clay basic soil, Institute Farm Road, 8km W of Le Kef. latitude: 35 deg. 49 min. N. longitude: 009 deg. 06 min. E. elevation: 800m. remarks: Rainfall 500mm. Wild. Seed.

PI 535564 donor id: TU-80-32. origin: Tunisia. collected: May 25, 1980. collector: W.L. Graves. collector id: TU-80-32. locality: Clay, basic soil, on dirt road to Haidra, 11.4km W of Thala. latitude: 35 deg. 38 min. N. longitude: 008 deg. 32 min. E. elevation: 900m. remarks: Rainfall 450mm. Wild. Seed.

PI 535565 donor id: TU-80-62. origin: Tunisia. collected: May 29, 1980. collector: W.L. Graves. collector id: TU-80-62. locality: Clay, basic soil, on dirt road to Haidra, 11.4km W of Thala. latitude: 35 deg. 38 min. N. longitude: 008 deg. 32 min. E. elevation: 900m. remarks: Rainfall 450mm. Wild. Seed.

PI 535566. *Sporobolus marginatus* Hochst. ex A. Rich. POACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-77. origin: Tunisia. collected: June 02, 1980. collector: W.L. Graves. collector id: TU-80-77. locality: Rocky shallow sandy basic loam soil, cactus planting, 22km N of Kairouan on GP3. latitude: 35 deg. 50 min. N. longitude: 010 deg. 01 min. E. elevation: 100m. remarks: Rainfall 300mm. Wild. Seed.

PI 535567 to 535570. *Trifolium fragiferum* L. FABACEAE Strawberry clover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535567 donor id: TU-80-99. origin: Tunisia. collected: June 04, 1980. collector: W.L. Graves. collector id: TU-80-99. locality: Basic rocky sandy loam to clay loam soil, 0.5km S of Thala on GP17. latitude: 35 deg. 33 min. N. longitude: 008 deg. 41 min. E. elevation: 1000m. remarks: Rainfall 450mm. Wild. Seed.

PI 535568 donor id: TU-80-116. origin: Tunisia. collected: June 05, 1980. collector: W.L. Graves. collector id: TU-80-116. locality: Loamy clay, basic soil, meadow N of road below an orchard, 11km W of Maktar on GP4. latitude: 35 deg. 50 min. N. longitude: 009 deg. 08 min. E. elevation: 800m. remarks: Rainfall 400mm. Wild. Seed.

PI 535569 donor id: TU-80-128. origin: Tunisia. collected: June 07, 1980. collector: W.L. Graves. collector id: TU-80-128. locality: Basic clay loam soil, roadside, about 3.5km W of Maktar on GP4. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 1000m. remarks: Rainfall 500mm. Wild. Seed.

PI 535570 donor id: TU-80-133. origin: Tunisia. collected: June 08, 1980. collector: W.L. Graves. collector id: TU-80-133. locality: Rocky sandy, basic soil, near Roman ruin just N of Feriana on highway GP15, 34km S of Kasserine, Kasserine Province. latitude: 34 deg. 57 min. N. longitude: 008 deg. 35 min. E. elevation: 700m. remarks: Rainfall 200mm. Wild. Seed.

PI 535571. *Trifolium isthmocarpum* Brot. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-29. **origin:** Tunisia. **collected:** May 25, 1980. **collector:** W.L. Graves. **collector id:** TU-80-29. **locality:** Clay, loamy clay, calcareous, basic soil, 28.3km SW of Le Kef on GP17 to Tedjerouine. **latitude:** 35 deg. 58 min. N. **longitude:** 008 deg. 35 min. E. **elevation:** 800m. **remarks:** Rainfall 500mm. Wild. Seed.

PI 535572. *Vicia* sp. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: TU-80-66. **origin:** Tunisia. **collected:** May 29, 1980. **collector:** W.L. Graves. **collector id:** TU-80-66. **locality:** Basic rocky sandy loam to clay loam soil, rocky hillside 0.5 km S of Thala on GP17. **latitude:** 35 deg. 33 min. N. **longitude:** 008 deg. 41 min. E. **elevation:** 1000m. **remarks:** Rainfall 450mm. Wild. Seed.

PI 535573. *Anthyllis hamosa* Desf. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 8227. **origin:** Tunisia. **collected:** June 20, 1981. **collector:** W.L. Graves. **collector id:** 8227. **locality:** Sand, acid soil, beach terrace, UCP-9.5km to Tabarka on GP7, Tabarka Province. **latitude:** 33 deg. 48 min. N. **longitude:** 010 deg. 50 min. E. **elevation:** 200m. **remarks:** Rainfall 1000mm. Wild. Seed.

PI 535574. *Anthyllis tetraphylla* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 8226. **origin:** Tunisia. **collected:** June 29, 1981. **collector:** W.L. Graves. **collector id:** 8226. **locality:** Sandy basic soil, Houmt Souk to Guellala at Ajim Road Crossing, Ajim, Medenine Province. **latitude:** 36 deg. 58 min. N. **longitude:** 008 deg. 50 min. E. **elevation:** 50m. **remarks:** Rainfall 150mm. Wild. Seed.

PI 535575. *Biserrula pelecinus* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 503. **origin:** Tunisia. **collected:** June 01, 1981. **collector:** W.L. Graves. **collector id:** 503.
locality: Sandy, acid soil, close to beach, near Raouf's House, Sidi Mechrig, Sedjnane Province. **latitude:** 37 deg. 10 min. N. **longitude:** 009 deg. 05 min. E.
elevation: 25m. **remarks:** Rainfall 1000mm. Wild. Seed.

PI 535576 to 535578. *Bituminaria bituminosa* (L.) Stirton FABACEAE
Arabian scurfpea

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535576 **donor id:** 981. **origin:** Tunisia. **collected:** June 14, 1981. **collector:** W.L. Graves. **collector id:** 981.
locality: Clay basic soil, roadside, old dirt road, Le Kef Institute, from Kef-W, 8km, Le Kef Province.
latitude: 36 deg. 11 min. N. **longitude:** 008 deg. 44 min. E. **elevation:** 800m. **remarks:** Rainfall 500mm. **received as:** *Psoralea bituminosa*. Wild. Seed.

PI 535577 **donor id:** 983. **origin:** Tunisia. **collected:** June 16, 1981. **collector:** W.L. Graves. **collector id:** 983.
locality: Rocky calcareous loam, basic soil, roadside 0.5km to Nabeul county line, Tunis-Turki autoroute, Nebeul Province. **latitude:** 36 deg. 32 min. N.
longitude: 010 deg. 34 min. E. **elevation:** 200m. **remarks:** Rainfall 450mm. **received as:** *Psoralea bituminosa*. Wild. Seed.

PI 535578 **donor id:** 984. **origin:** Tunisia. **collected:** June 18, 1981. **collector:** W.L. Graves. **collector id:** 984.
locality: Loam basic soil, Belvedere Park, Tunis, Tunis Province. **latitude:** 36 deg. 50 min. N. **longitude:** 010 deg. 11 min. E. **elevation:** 50m. **remarks:** Rainfall 450mm. **received as:** *Psoralea bituminosa*. Wild. Seed.

PI 535579. *Dactylis glomerata* L. POACEAE Orchardgrass

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535579-continued

donor id: 900. origin: Tunisia. origin institute:
Tunisian Agronomy Institute (INAT). collected: June 15,
1981. collector: Dr. Zouaghi. collector id: 900. Wild.
Seed.

PI 535580. *Elytrigia elongata* (Host) Nevski POACEAE Tall wheatgrass

Donated by: Graves, W.L., University of California, Building 4, 5555
Overland Avenue, San Diego, California, United States. Received May
23, 1988.

donor id: 811. origin: Tunisia. collected: June 23,
1981. collector: W.L. Graves. collector id: 811.
locality: Slightly basic clay calcareous soil, Fernana,
GP17. latitude: 36 deg. 39 min. N. longitude: 008 deg.
41 min. E. elevation: 300m. remarks: Rainfall 600mm.
received as: *Agropyron elongatum*. Wild. Seed.

PI 535581. *Elytrigia juncea* (L.) Nevski POACEAE Wheatgrass

Donated by: Graves, W.L., University of California, Building 4, 5555
Overland Avenue, San Diego, California, United States. Received May
23, 1988.

donor id: 8225. origin: Tunisia. collected: June 29,
1981. collector: W.L. Graves. collector id: 8225.
locality: Sandy dunes beach area, basic soil, Jerba
Island, near Dar El Jerba Hotel, Jerba, Medenine
Province. latitude: 33 deg. 51 min. N. longitude: 010
deg. 57 min. E. elevation: 5m. remarks: Rainfall 150mm.
received as: *Agropyron junceum*. Wild. Seed.

PI 535582. *Festuca arundinacea* Schreber POACEAE Tall fescue

Donated by: Graves, W.L., University of California, Building 4, 5555
Overland Avenue, San Diego, California, United States. Received May
23, 1988.

donor id: 870. origin: Tunisia. origin institute:
Tunisian Agricultural Exp. Sta. (INRAT). cultivar:
DJEBIBINA. collected: June 15, 1981. collector: W.L.
Graves. collector id: 870. Cultivar. Seed.

PI 535583 to 535589. *Hedysarum coronarium* L. FABACEAE French
honeysuckle

Donated by: Graves, W.L., University of California, Building 4, 5555
Overland Avenue, San Diego, California, United States. Received May
23, 1988.

PI 535583 donor id: 455. origin: Tunisia. collected: June 10,
1981. collector: W.L. Graves. collector id: 455. other
id: 8112. locality: Clay basic soil,
Sakiet-Sidi-Youssef-Kef at Algeria border on GP5.
latitude: 36 deg. 13 min. N. longitude: 008 deg. 22 min.
E. elevation: 700m. remarks: Rainfall 600mm. Wild.
Seed.

PI 535584 donor id: 456. origin: Tunisia. collected: June 02,
1981. collector: W.L. Graves. collector id: 456.
locality: Rocky calcareous loam, basic soil, roadside
0.5km to Nabeul county line, Tunis-Turki autoroute,
Nebeul Province. latitude: 36 deg. 32 min. N.
longitude: 010 deg. 34 min. E. elevation: 200m.
remarks: Rainfall 450mm. Wild. Seed.

PI 535585 donor id: 457. origin: Tunisia. origin institute:
Tunisian Agronomy Institute (INAT). collected: June 15,
1981. collector: Dr. Zouaghi. collector id: 457. Wild.
Seed.

PI 535586 origin: Tunisia. origin institute: Tunisian Agricultural
Exp. Sta. (INRAT). cultivar: GRIMALDI. Cultivar. Seed.

PI 535587 origin: Tunisia. origin institute: Tunisian Agronomy
Institute (INAT). cultivar: TUNISIAN COMMON. collected:
June 15, 1981. Cultivar. Seed.

PI 535588 donor id: 8113. origin: Tunisia. collected: June 18,
1981. collector: W.L. Graves. collector id: 8113.
locality: Rocky calcareous loam, basic soil, roadside
0.5km to Nabeul, Tunis-Turki autoroute, Nabeul Province.
latitude: 36 deg. 32 min. N. longitude: 010 deg. 34 min.
E. elevation: 200m. remarks: Rainfall 450mm. Wild.
Seed.

PI 535589 donor id: 8114. origin: Tunisia. collected: June 14,
1981. collector: W.L. Graves. collector id: 8114.
locality: Clay basic soil, near farm KEF Agricultural
school, 5km S on C71, KEF Province. latitude: 36 deg. 14
min. N. longitude: 008 deg. 45 min. E. elevation: 750m.
remarks: Rainfall 500mm. Wild. Seed.

PI 535590 to 535593. *Lotus creticus* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535590 donor id: 505. origin: Tunisia. collected: June 02, 1981. collector: W.L. Graves. collector id: 505. locality: Sandy basic soil, Almond orchard Limaya-SFAX, Sidi Bou Zid GP13 road, Sidi Bou Zid Province. latitude: 34 deg. 53 min. N. longitude: 010 deg. 31 min. E. elevation: 200m. remarks: Rainfall 200mm. Wild. Seed.

PI 535591 donor id: 8102. origin: Tunisia. collected: June 16, 1981. collector: W.L. Graves. collector id: 8102. locality: Clay basic soil, near farm, KEF Agricultural school, 5km S on C71, Kef province. latitude: 36 deg. 14 min. N. longitude: 008 deg. 45 min. E. elevation: 750m. remarks: Rainfall 500mm. Wild. Seed.

PI 535592 donor id: 8103. origin: Tunisia. collected: May 15, 1981. collector: W.L. Graves. collector id: 8103. locality: Rocky sandy loam, basic soil, roadside Kairouan to Ousseltia Road on C46, 4km N of C99, Kairouan Province. latitude: 35 deg. 53 min. N. longitude: 009 deg. 43 min. E. elevation: 450m. remarks: Rainfall 450mm. Wild. Seed.

PI 535593 donor id: 8104. origin: Tunisia. collected: June 10, 1981. collector: W.L. Graves. collector id: 8104. locality: Loam basic soil, Belvedere Park-Tunis, Tunis Province. latitude: 36 deg. 50 min. N. longitude: 010 deg. 11 min. E. elevation: 50m. remarks: Rainfall 450mm. Wild. Seed.

PI 535594. *Lotus edulis* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 8228. origin: Tunisia. collected: June 20, 1981. collector: W.L. Graves. collector id: 8228. locality: Acid, loam soil, roadside, GP7, Ain Sobah, 15km to Tabarka, Tabarka Province. latitude: 36 deg. 57 min. N. longitude: 008 deg. 57 min. E. elevation: 200m. remarks: Rainfall 1000mm. Wild. Seed.

PI 535595 to 535596. *Lotus* sp. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535595 **donor id:** 8105. **origin:** Tunisia. **collected:** May 15, 1981. **collector:** W.L. Graves. **collector id:** 8105. **locality:** Sandy, acid, boggy soil, beach, mesa above, Sidi-Mechrig, Sedjnane Province. **latitude:** 37 deg. 10 min. N. **longitude:** 009 deg. 05 min. E. **elevation:** 50m. **remarks:** Rainfall 1000mm. Wild. Seed.

PI 535596 **donor id:** 8106. **origin:** Tunisia. **collected:** June 05, 1981. **collector:** W.L. Graves. **collector id:** 8106. **locality:** Sandy basic soil, roadside, 6km from Nebeul to Tunis on C27, Nabeul Province. **latitude:** 36 deg. 29 min. N. **longitude:** 010 deg. 44 min. E. **elevation:** 50m. **remarks:** Rainfall 400mm. Wild. Seed.

PI 535597. *Medicago arborea* L. FABACEAE Tree alfalfa

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 8110. **origin:** Tunisia. **collected:** June 10, 1981. **collector:** W.L. Graves. **collector id:** 8110. **locality:** Loam basic soil, Belvedere Park, Tunis Province. **latitude:** 36 deg. 50 min. N. **longitude:** 010 deg. 11 min. E. **elevation:** 50m. **remarks:** Rainfall 450mm. Wild. Seed.

PI 535598 to 535599. *Medicago ciliaris* (L.) All. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535598 **donor id:** K. **origin:** Tunisia. **collected:** June 19, 1981. **collector:** W.L. Graves. **collector id:** K. **locality:** Clay basic soil, near farm, KEF Agricultural school, 5km S on C71. **latitude:** 36 deg. 14 min. N. **longitude:** 008 deg. 45 min. E. **elevation:** 750m. **remarks:** Rainfall 500mm. Wild. Seed.

PI 535599 **donor id:** 14 H/S. **origin:** Tunisia. **origin institute:** Tunisian Agricultural Exp. Sta. (INRAT). **collected:** June 15, 1981. **collector:** Mr. Seklani. **collector id:** 14 H/S. Wild. Seed.

PI 535600 to 535605. *Medicago doliata* Carmign. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535600 **donor id:** 13 H/S. **origin:** Tunisia. **origin institute:** Tunisian Agricultural Exp. Sta. (INRAT). **collected:** June 15, 1981. **collector:** Mr. Seklani. **collector id:** 13 H/S. Wild. Seed.

PI 535601 **donor id:** 614. **origin:** Tunisia. **origin institute:** Tunisian Agronomy Institute (INAT). **collected:** June 15, 1981. **collector:** Dr. Zouaghi. **collector id:** 614. Wild. Seed.

PI 535602 **donor id:** 700. **origin:** Tunisia. **collected:** June 15, 1981. **collector:** W.L. Graves. **collector id:** 700. **locality:** Acid loam soil, OEP office equipment lot, Sedjnane. **latitude:** 37 deg. 04 min. N. **longitude:** 009 deg. 16 min. E. **elevation:** 200m. **remarks:** Rainfall 800mm. Wild. Seed.

PI 535603 **donor id:** 701. **origin:** Tunisia. **origin institute:** Tunisian Agricultural Exp. Sta. (INRAT). **collected:** June 15, 1981. **collector:** Mr. Seklani. **collector id:** 701. Wild. Seed.

PI 535604 **donor id:** 703. **origin:** Tunisia. **origin institute:** Tunisian Agricultural Exp. Sta. (INRAT). **collected:** June 15, 1981. **collector:** Mr. Seklani. **collector id:** 703. Wild. Seed.

PI 535605 **donor id:** 704. **origin:** Tunisia. **origin institute:** Tunisian Agricultural Exp. Sta. (INRAT). **collected:** June 15, 1981. **collector:** Mr. Seklani. **collector id:** 704. Wild. Seed.

PI 535606 to 535607. *Medicago intertexta* (L.) Miller FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535606 **donor id:** 75083. **origin:** Tunisia. **origin institute:** Tunisian Agronomy Institute (INAT). **collected:** June 15, 1981. **collector:** Dr. Zouaghi. **collector id:** 75083. Wild. Seed.

PI 535607 **donor id:** Z1. **origin:** Tunisia. **origin institute:** Tunisian Agronomy Institute (INAT). **collected:** June 15, 1981. **collector:** Dr. Zouaghi. **collector id:** Z1. Wild. Seed.

PI 535608 to 535609. *Medicago italica* (Miller) Fiori FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535608 donor id: BK. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: BK. locality: Sandy, basic orchard soil, Beni-Khiar, C27 road, 5km from Nabeul, Nabeul Province. latitude: 36 deg. 29 min. N. longitude: 010 deg. 48 min. E. elevation: 25m. remarks: Rainfall 400mm. received as: *Medicago tornata*. Wild. Seed.

PI 535609 donor id: 8120. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 8120. locality: Sandy, basic orchard soil, Beni-Khiar, C27 road, 5km from Nabeul, Nabeul Province. latitude: 36 deg. 29 min. N. longitude: 010 deg. 48 min. E. elevation: 25m. remarks: Rainfall 400mm. received as: *Medicago tornata*. Wild. Seed.

PI 535610 to 535612. *Medicago laciniata* (L.) Miller FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535610 donor id: 8101. origin: Tunisia. collected: May 16, 1981. collector: W.L. Graves. collector id: 8101. locality: Sandy basic soil, almond orchard, Sidi Bou Zid on GP13 road, Limaya-SFAX, SFAX Province. latitude: 34 deg. 53 min. N. longitude: 010 deg. 31 min. E. elevation: 200m. remarks: Rainfall 200mm. Wild. Seed.

PI 535611 donor id: 8108. origin: Tunisia. collected: May 10, 1981. collector: W.L. Graves. collector id: 8108. locality: Sandy basic soil, roadside, Medenine-18km to Gabes on GP1, Gabes Province. latitude: 33 deg. 48 min. N. longitude: 010 deg. 10 min. E. elevation: 50m. remarks: Rainfall 150mm. Wild. Seed.

PI 535612 donor id: 8109. origin: Tunisia. collected: May 15, 1981. collector: W.L. Graves. collector id: 8109. locality: Sandy basic soil, roadside, 28km N of Gafsa on GP14 on road to Sidi Bou Baker near Kef Derbi, Gafsa Province. latitude: 34 deg. 38 min. N. longitude: 008 deg. 33 min. E. elevation: 400m. remarks: Rainfall 150mm. Wild. Seed.

PI 535613 to 535622. *Medicago littoralis* Rohde ex Lois. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535613 **donor id:** 760. **origin:** Tunisia. **collected:** June 14, 1981. **collector:** W.L. Graves. **collector id:** 760. **locality:** Rocky shallow loamy sand, basic soil, roadside, Bouthadi, on C96, 3km to C81 Kairouan Road, Kairouan Province. **latitude:** 35 deg. 08 min. N. **longitude:** 010 deg. 17 min. E. **elevation:** 240m. **remarks:** Rainfall 200mm. Wild. Seed.
- PI 535614 **donor id:** 761. **origin:** Tunisia. **collected:** June 14, 1981. **collector:** W.L. Graves. **collector id:** 761. **locality:** Sandy basic soil, desert biome site, Dar-El-Zaoui, 31km to Medenine from Ben-Ghardane on GP1, Medenine Province. **latitude:** 33 deg. 17 min. N. **longitude:** 010 deg. 49 min. E. **elevation:** 50m. **remarks:** Rainfall 100 to 150mm. Wild. Seed.
- PI 535615 **donor id:** 762. **origin:** Tunisia. **collected:** June 03, 1981. **collector:** W.L. Graves. **collector id:** 762. **locality:** Sandy loam, basic soil, Enfida, GP1, 88km to Tunis. **latitude:** 36 deg. 09 min. N. **longitude:** 010 deg. 23 min. E. **elevation:** 25m. **remarks:** Rainfall 350mm. Wild. Seed.
- PI 535616 **donor id:** 763. **origin:** Tunisia. **collected:** June 14, 1981. **collector:** W.L. Graves. **collector id:** 763. **locality:** Sandy basic soil, roadside, Medenine, 18km to Gabes on GP1, Gabes Province. **latitude:** 33 deg. 48 min. N. **longitude:** 010 deg. 10 min. E. **elevation:** 50m. **remarks:** Rainfall 150mm. Wild. Seed.
- PI 535617 **donor id:** 764. **origin:** Tunisia. **collected:** June 14, 1981. **collector:** W.L. Graves. **collector id:** 764. **locality:** Sandy basic soil, Sekhira, GP1, 46km from Gabes, Gabes Province. **latitude:** 34 deg. 16 min. N. **longitude:** 010 deg. 04 min. E. **elevation:** 25m. **remarks:** Rainfall 150mm. Wild. Seed.
- PI 535618 **donor id:** 765. **origin:** Tunisia. **collected:** June 13, 1981. **collector:** W.L. Graves. **collector id:** 765. **locality:** Loamy sand, shallow, basic soil, roadside, S Tunisia Matmata to Temezret Road on C104, 1.5km from Matmata. **latitude:** 33 deg. 33 min. N. **longitude:** 009 deg. 56 min. E. **elevation:** 400m. **remarks:** Rainfall 200mm. Wild. Seed.

PI 535613 to 535622-continued

- PI 535619 donor id: 766. origin: Tunisia. collected: June 13, 1981. collector: W.L. Graves. collector id: 766. locality: Sandy basic soil, cactus planting 14.5km E of Gafsa on GP14, Gafsa Province. latitude: 34 deg. 26 min. N. longitude: 008 deg. 56 min. E. elevation: 300m. remarks: Rainfall 150mm. Wild. Seed.
- PI 535620 donor id: 767. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 767. locality: Sandy acid soil, Sidi-Mechrig, near Raouf's House, close to beach, Sedjnane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 05 min. E. elevation: 25m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535621 donor id: 768. origin: Tunisia. collected: June 12, 1981. collector: W.L. Graves. collector id: 768. locality: Sandy basic soil, almond orchard, Limaya-SFAX, Sidi Bou Zid GP13 road. latitude: 34 deg. 53 min. N. longitude: 010 deg. 31 min. E. elevation: 200m. remarks: Rainfall 200mm. Wild. Seed.
- PI 535622 donor id: 769. origin: Tunisia. collected: June 14, 1981. collector: W.L. Graves. collector id: 769. locality: Sandy basic soil, protected roadside area, Medenine, 23km to Ben Ghardane on GP1, Medenine Province. latitude: 33 deg. 09 min. N. longitude: 011 deg. 04 min. E. elevation: 50m. remarks: Rainfall 100mm. Wild. Seed.

PI 535623 to 535627. *Medicago murex* Willd. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535623 donor id: BF. origin: Tunisia. collected: June 10, 1981. collector: W.L. Graves. collector id: BF. locality: Clay loam, basic soil, C35, Zaghouan to Tunis, 32km to Bou Ficha, Zaghouan Province. latitude: 36 deg. 26 min. N. longitude: 010 deg. 18 min. E. elevation: 200m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535624 donor id: SJ. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: SJ. locality: Acid loam soil, Sedjnane, OEP office equipment lot, GP7, Sedjnane Province. latitude: 37 deg. 04 min. N. longitude: 009 deg. 16 min. E. elevation: 200m. remarks: Rainfall 800mm. Wild. Seed.

PI 535623 to 535627-continued

- PI 535625 donor id: Z. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: Z. Wild. Seed.
- PI 535626 donor id: 12 H/S. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 12 H/S. Wild. Seed.
- PI 535627 donor id: 610. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 610. Wild. Seed.

PI 535628 to 535632. *Medicago orbicularis* (L.) Bartal. FABACEAE
Buttonclover medic

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535628 donor id: AS. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: AS. locality: Acid loam soil, roadside, Ain Sobah, GP7, 15km to Tabarka, Tabarka Province. latitude: 36 deg. 57 min. N. longitude: 008 deg. 57 min. E. elevation: 200m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535629 donor id: BC. origin: Tunisia. collected: June 16, 1981. collector: W.L. Graves. collector id: BC. locality: Basic, rocky sandy loam soil, rocky outcrop S side of road, 1.5km SE of Bou Chebka, Kasserine Province. latitude: 35 deg. 09 min. N. longitude: 008 deg. 27 min. E. elevation: 1200m. remarks: Rainfall 300mm. Wild. Seed.
- PI 535630 donor id: K. origin: Tunisia. collected: June 02, 1981. collector: W.L. Graves. collector id: K. locality: Clay basic soil, near farm, KEF Agricultural school, 5km S on C71, Kef Province. latitude: 36 deg. 14 min. N. longitude: 008 deg. 45 min. E. elevation: 750m. remarks: Rainfall 500mm. Wild. Seed.
- PI 535631 donor id: X. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: X. Wild. Seed.

PI 535628 to 535632-continued

PI 535632 donor id: 19 H/S. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 19 H/S. Wild. Seed.

PI 535633 to 535636. *Medicago polymorpha* L. FABACEAE California burclover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535633 donor id: 16 H/S. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 16 H/S. Wild. Seed.

PI 535634 donor id: 602. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 602. Wild. Seed.

PI 535635 donor id: 603. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 603. Wild. Seed.

PI 535636 donor id: 604. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 604. Wild. Seed.

PI 535637 to 535640. *Medicago rugosa* Desr. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535637 donor id: 17 H/S. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 17 H/S. Wild. Seed.

PI 535638 donor id: 615. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 615. Wild. Seed.

PI 535637 to 535640-continued

PI 535639 donor id: 750. origin: Tunisia. collected: June 21, 1981. collector: W.L. Graves. collector id: 750. locality: Basic clay loam soil, roadside, about 3.5km W of Maktar on GP4, Siliana Province. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 1000m. remarks: Rainfall 500mm. Wild. Seed.

PI 535640 donor id: 751. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 751. Wild. Seed.

PI 535641 to 535645. *Medicago scutellata* (L.) Miller FABACEAE Snail medic

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535641 donor id: Z. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: Z. Wild. Seed.

PI 535642 donor id: AS. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: AS. locality: Acid loam soil, roadside, Ain Sobah, GP7, 15km to Tabarka, Tabarka Province. latitude: 36 deg. 57 min. N. longitude: 008 deg. 57 min. E. elevation: 200m. remarks: Rainfall 1000mm. Wild. Seed.

PI 535643 donor id: 7 H/S. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 7 H/S. Wild. Seed.

PI 535644 donor id: 11 H/S. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 11 H/S. Wild. Seed.

PI 535645 donor id: 8121. origin: Tunisia. collected: June 20, 1981. collector: W.L. Graves. collector id: 8121. locality: Rocky shallow sandy loam basic soil, nursery on forest service land for seeding and range improvement, 7km NW of El Grine, Kairouan Province. latitude: 35 deg. 50 min. N. longitude: 009 deg. 55 min. E. elevation: 100m. remarks: Rainfall 350mm. Wild. Seed.

PI 535646 to 535647. *Medicago soleirolii* Duby FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535646 donor id: 601. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 601. locality: Acid loam soil, OEP office equipment lot, Sedjnane, Sedjnane Province. latitude: 37 deg. 04 min. N. longitude: 009 deg. 16 min. E. elevation: 200m. remarks: Rainfall 800mm. Wild. Seed.

PI 535647 donor id: 8121-A. origin: Tunisia. collected: June 23, 1981. collector: W.L. Graves. collector id: 8121-A. locality: Acid loam soil, OEP office equipment lot, Sedjnane, Sedjnane Province. latitude: 37 deg. 04 min. N. longitude: 009 deg. 16 min. E. elevation: 200m. remarks: Rainfall 800mm. Wild. Seed.

PI 535648 to 535652. *Medicago truncatula* Gaertner FABACEAE
Barrelclover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535648 donor id: 22 H/S. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 22 H/S. Wild. Seed.

PI 535649 donor id: 611. origin: Tunisia. collected: June 18, 1981. collector: W.L. Graves. collector id: 611. locality: Acid loam soil, roadside, Ain Sobah, GP7, 15km to Tabarka, Tabarka Province. latitude: 36 deg. 57 min. N. longitude: 008 deg. 57 min. E. elevation: 200m. remarks: Rainfall 1000mm. Wild. Seed.

PI 535650 donor id: 612. origin: Tunisia. collected: June 20, 1981. collector: W.L. Graves. collector id: 612. locality: Basic, rocky sandy loam soil, rocky outcrop S side of road, about 1.5km SE of Bou Chebka on GP15, Kasserine Province. latitude: 35 deg. 09 min. N. longitude: 009 deg. 55 min. E. elevation: 1200m. remarks: Rainfall 300mm. Wild. Seed.

PI 535651 donor id: 613. origin: Tunisia. collected: June 21, 1981. collector: W.L. Graves. collector id: 613. locality: Basic clay loam soil, roadside, about 3.5km W from Maktar on GP4, Siliana Province. latitude: 35 deg. 51 min. N. longitude: 009 deg. 11 min. E. elevation: 1000m. remarks: Rainfall 500mm. Wild. Seed.

PI 535648 to 535652-continued

PI 535652 donor id: 8123. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 8123. Wild. Seed.

PI 535653. *Ornithopus compressus* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 999. origin: Tunisia. cultivar: UNISERRA. collected: June 15, 1981. collector: W.L. Graves. collector id: 999. Cultivar. Seed.

PI 535654 to 535655. *Ornithopus pinnatus* (Miller) Druce FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535654 donor id: SM-H. origin: Tunisia. collected: May 15, 1981. collector: W.L. Graves. collector id: SM-H. locality: Sandy acid soil, near Raouf's house, close to beach, Sidi-Mechrig, Sedjnane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 05 min. E. elevation: 25m. remarks: Rainfall 1000mm. Wild. Seed.

PI 535655 donor id: SM-T. origin: Tunisia. collected: May 15, 1981. collector: W.L. Graves. collector id: SM-T. locality: Sandy, acid soil, boggy mesa above beach, Sidi-Mechrig, Sedjnane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 05 min. E. elevation: 50m. remarks: Rainfall 1000mm. Wild. Seed.

PI 535656. *Oryzopsis holciformis* (Bieb.) Hack. POACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 990. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. Cultivated. Seed.

PI 535657 to 535669. *Oryzopsis miliacea* (L.) Benth. & Hook. POACEAE
Smilgrass

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535657 donor id: 801. origin: Tunisia. collected: June 30, 1981. collector: W.L. Graves. collector id: 801. locality: Sandy loam basic soil, 15km from Tunis, La Marsa, Tunis Province. latitude: 36 deg. 53 min. N. longitude: 010 deg. 20 min. E. elevation: 25m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535658 donor id: 804. origin: Tunisia. collected: June 17, 1981. collector: W.L. Graves. collector id: 804. locality: Sandy basic soil, road to Sidi Bou Baker, 28km N of Gafsa on GP15, Gafsa Province. latitude: 34 deg. 38 min. N. longitude: 008 deg. 33 min. E. elevation: 400m. remarks: Rainfall 150mm. Wild. Seed.
- PI 535659 donor id: 840. origin: Tunisia. collected: June 18, 1981. collector: W.L. Graves. collector id: 840. locality: Basic, rocky shallow loamy sand soil, 3km to C81 Kairouan road on C96 to Bou Thadi, Kairouan Province. latitude: 35 deg. 08 min. N. longitude: 010 deg. 17 min. E. elevation: 240m. remarks: Rainfall 200mm. Wild. Seed.
- PI 535660 donor id: 860. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 860. Wild. Seed.
- PI 535661 donor id: 920. origin: Tunisia. collected: June 29, 1981. collector: W.L. Graves. collector id: 920. locality: Sandy basic soil, Gabes Oasis, Gabes Province. latitude: 33 deg. 54 min. N. longitude: 010 deg. 07 min. E. elevation: 25m. remarks: Rainfall 150mm. Wild. Seed.
- PI 535662 donor id: 940. origin: Tunisia. collected: June 27, 1981. collector: W.L. Graves. collector id: 940. locality: Rocky shallow sandy loam, basic soil, roadside rock fence, C73, Ousseltia, 15km to Siliana, Siliana Province. latitude: 35 deg. 59 min. N. longitude: 009 deg. 28 min. E. elevation: 500m. remarks: Rainfall 400mm. Wild. Seed.

PI 535657 to 535669-continued

- PI 535663 donor id: 960. origin: Tunisia. collected: May 21, 1981. collector: W.L. Graves. collector id: 960. locality: Rocky sandy loam, basic soil, roadside between Medjez El-Bab and Beja, Oued Zarga on GP6, Beja Province. latitude: 36 deg. 41 min. N. longitude: 009 deg. 24 min. E. elevation: 100m. remarks: Rainfall 500mm. Wild. Seed.
- PI 535664 donor id: 970. origin: Tunisia. collected: June 16, 1981. collector: W.L. Graves. collector id: 970. locality: Rocky sandy loam, basic soil, roadside, on C46, 5km N of C99 Kairouan to Ousseltia Road, Kairouan Province. latitude: 35 deg. 53 min. N. longitude: 009 deg. 43 min. E. elevation: 450m. remarks: Rainfall 400mm. Wild. Seed.
- PI 535665 donor id: 980. origin: Tunisia. collected: June 14, 1981. collector: W.L. Graves. collector id: 980. locality: Rocky sandy soil, basic, near Roman ruins just N of Feriana on highway GP15, 34km S of Kasserine, Kasserine Province. latitude: 34 deg. 57 min. N. longitude: 008 deg. 35 min. E. elevation: 700m. remarks: Rainfall 200mm. Wild. Seed.
- PI 535666 donor id: 84-1. origin: Tunisia. collected: June 30, 1981. collector: W.L. Graves. collector id: 84-1. locality: Sandy basic soil, Jerba, Houmt Souk to Guellala at Ajim Road Crossing, Medenine Province. latitude: 33 deg. 48 min. N. longitude: 010 deg. 50 min. E. elevation: 50m. remarks: Rainfall 150mm. Wild. Seed.
- PI 535667 donor id: 84-4. origin: Tunisia. collected: June 30, 1981. collector: W.L. Graves. collector id: 84-4. locality: Sandy soil, basic, Jerba-Tourgurness-Midoun road, 2km inland, Medenine Province. latitude: 33 deg. 49 min. N. longitude: 011 deg. 00 min. E. elevation: 50m. remarks: Rainfall 150mm. Wild. Seed.
- PI 535668 donor id: 84-7. origin: Tunisia. collected: June 30, 1981. collector: W.L. Graves. collector id: 84-7. locality: Sandy basic soil, Jerba-Houmt Souk to Guellala at Ajim Road Crossing, Medenine Province. latitude: 33 deg. 48 min. N. longitude: 010 deg. 50 min. E. elevation: 50m. remarks: Rainfall 150mm. Wild. Seed.
- PI 535669 donor id: 84-15. origin: Tunisia. collected: June 30, 1981. collector: W.L. Graves. collector id: 84-15. locality: Sandy dunes beach area, basic soil, Jerba Island near Dar El Jerba Hotel, Medenine Province. latitude: 33 deg. 51 min. N. longitude: 010 deg. 57 min. E. elevation: 5m. remarks: Rainfall 150mm. Wild. Seed.

PI 535670. *Phalaris aquatica* L. POACEAE Bulbous canarygrass

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 850. **origin:** Tunisia. **origin institute:** Tunisian Agronomy Institute (INAT). **collected:** June 15, 1981. **collector:** Dr. Zouaghi. **collector id:** 850. **received as:** *Phalaris tuberosa*. Wild. Seed.

PI 535671 to 535672. *Phalaris truncata* Guss. POACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535671 **donor id:** 810. **origin:** Tunisia. **origin institute:** Tunisian Agronomy Institute (INAT). **collected:** June 15, 1981. **collector:** Dr. Zouaghi. **collector id:** 810. Wild. Seed.

PI 535672 **donor id:** 821. **origin:** Tunisia. **origin institute:** Tunisian Agronomy Institute (INAT). **collected:** June 15, 1981. **collector:** Dr. Zouaghi. **collector id:** 821. Wild. Seed.

PI 535673 to 535674. *Scorpiurus muricatus* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535673 **donor id:** 8115. **origin:** Tunisia. **collected:** June 05, 1981. **collector:** W.L. Graves. **collector id:** 8115. **locality:** Sandy loam soil, basic, in orchard at Si El-Hani, GP12, Sousse to Kairouan, Sousse Province. **latitude:** 35 deg. 41 min. N. **longitude:** 010 deg. 19 min. E. **elevation:** 100m. **remarks:** Rainfall 300mm. Wild. Seed.

PI 535674 **donor id:** 8118. **origin:** Tunisia. **collected:** June 23, 1981. **collector:** W.L. Graves. **collector id:** 8118. **locality:** Acid loam soil, OEP office equipment lot, GP7, Sedjnane, Sedjnane Province. **latitude:** 37 deg. 04 min. N. **longitude:** 009 deg. 16 min. E. **elevation:** 200m. **remarks:** Rainfall 800mm. Wild. Seed.

PI 535675 to 535677. *Scorpiurus vermiculatus* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535675 donor id: 8116. origin: Tunisia. collected: June 23, 1981. collector: W.L. Graves. collector id: 8116. locality: Acid loam soil, OEP office equipment lot, GP7, Sedjnane, Sedjnane Province. latitude: 37 deg. 04 min. N. longitude: 009 deg. 16 min. E. elevation: 200m. remarks: Rainfall 800mm. Wild. Seed.
- PI 535676 donor id: 8117. origin: Tunisia. collected: June 23, 1981. collector: W.L. Graves. collector id: 8117. locality: Acid loam soil, roadside GP7, Ain Sobah, 15km to Tabarka, Tabarka Province. latitude: 36 deg. 57 min. N. longitude: 008 deg. 57 min. E. elevation: 200m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535677 donor id: 8119. origin: Tunisia. collected: June 14, 1981. collector: W.L. Graves. collector id: 8119. locality: Clay loam basic soil, C35 Zaghouan to Tunis, 132km to Bou Ficha, Zachouan Province. latitude: 36 deg. 26 min. N. longitude: 010 deg. 18 min. E. elevation: 200m. remarks: Rainfall 450mm. Wild. Seed.

PI 535678 to 535680. *Trifolium angustifolium* L. FABACEAE Clover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

- PI 535678 donor id: 996. origin: Tunisia. collected: June 18, 1981. collector: W.L. Graves. collector id: 996. locality: Loam soil basic, Belvedere Park-Tunis, Tunis Province. latitude: 36 deg. 50 min. N. longitude: 010 deg. 11 min. E. elevation: 50m. remarks: Rainfall 450mm. Wild. Seed.
- PI 535679 donor id: 997. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 997. locality: Acid loam soil, roadside, GP7, 15km to Tabarka, Ain Sobah, Tabarka Province. latitude: 36 deg. 57 min. N. longitude: 008 deg. 57 min. E. elevation: 200m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535680 donor id: 998. origin: Tunisia. collected: June 18, 1981. collector: W.L. Graves. collector id: 998. locality: Loam, basic soil, roadside Zaghouan, 35km to Tunis C35, Zaghouan Province. latitude: 36 deg. 26 min. N. longitude: 010 deg. 09 min. E. elevation: 200m. remarks: Rainfall 450mm. Wild. Seed.

PI 535681. *Trifolium campestre* Schreber FABACEAE Large hop clover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 986. **origin:** Tunisia. **collected:** May 15, 1981. **collector:** W.L. Graves. **collector id:** 986.
locality: Sandy, acid soil, boggy, mesa above beach, Sidi-Mechrig, Sedjnane Province. **latitude:** 37 deg. 10 min. N. **longitude:** 009 deg. 05 min. E. **elevation:** 50m.
remarks: Rainfall 1000mm. Wild. Seed.

PI 535682 to 535686. *Trifolium cherleri* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535682 **donor id:** 407(B). **origin:** Tunisia. **collected:** June 16, 1981. **collector:** W.L. Graves. **collector id:** 407(B).
locality: Clay loam, basic soil, C35, Zaghouan to Tunis 32km to Bou Ficha, Zaghouan Province. **latitude:** 36 deg. 26 min. N. **longitude:** 010 deg. 18 min. E. **elevation:** 200m. **remarks:** Rainfall 450mm. Wild. Seed.

PI 535683 **donor id:** 408. **origin:** Tunisia. **collected:** June 24, 1981. **collector:** W.L. Graves. **collector id:** 408.
locality: Sandy basic soil, roadside, 6km from Nabeul to Tunis on C27, Nabeul Province. **latitude:** 36 deg. 29 min. N. **longitude:** 010 deg. 44 min. E. **elevation:** 50m.
remarks: Rainfall 400mm. Wild. Seed.

PI 535684 **donor id:** 409. **origin:** Tunisia. **collected:** June 23, 1981. **collector:** W.L. Graves. **collector id:** 409.
locality: Loam, basic, shallow soil, 16km to Beja on GP6 from Medjaz El-Bab, Beja Province. **latitude:** 36 deg. 39 min. N. **longitude:** 009 deg. 36 min. E. **elevation:** 300m.
remarks: Rainfall 500mm. Wild. Seed.

PI 535685 **donor id:** 410. **origin:** Tunisia. **collected:** June 01, 1981. **collector:** W.L. Graves. **collector id:** 410.
locality: Sand, acid soil, beach terrace UCP 9.5km to Tabarka on GP7, Tabarka Province. **latitude:** 36 deg. 58 min. N. **longitude:** 008 deg. 50 min. E. **elevation:** 25m.
remarks: Rainfall 1000mm. Wild. Seed.

PI 535686 **donor id:** 411. **origin:** Tunisia. **collected:** June 14, 1981. **collector:** W.L. Graves. **collector id:** 411.
locality: Clay loam basic soil, Zaghouan to Tunis (32km to Bou Ficha), Zaghouan Province. **latitude:** 36 deg. 26 min. N. **longitude:** 010 deg. 18 min. E. **elevation:** 200m.
remarks: Rainfall 450mm. Wild. Seed.

PI 535687 to 535691. *Trifolium fragiferum* L. FABACEAE Strawberry
clover

Donated by: Graves, W.L., University of California, Building 4, 5555
Overland Avenue, San Diego, California, United States. Received May
23, 1988.

PI 535687 donor id: 800. origin: Tunisia. collected: June 30,
1981. collector: W.L. Graves. collector id: 800.
locality: Basic clay loam soil, about 3.5km W of Maktar,
Siliana Province. latitude: 35 deg. 51 min. N.
longitude: 009 deg. 11 min. E. elevation: 1000m.
remarks: Rainfall 500mm. Wild. Seed.

PI 535688 donor id: 984. origin: Tunisia. collected: June 30,
1981. collector: W.L. Graves. collector id: 984.
locality: Basic loam soil, salt flats along roadside,
C71, Rohia, Siliana Province. latitude: 35 deg. 39 min.
N. longitude: 009 deg. 04 min. E. elevation: 600m.
remarks: Rainfall 400mm. Wild. Seed.

PI 535689 donor id: 985. origin: Tunisia. collected: June 30,
1981. collector: W.L. Graves. collector id: 985.
locality: Clay loam, basic soil, Thala, 13km N on GP17,
Kasserine Province. latitude: 35 deg. 38 min. N.
longitude: 008 deg. 39 min. E. elevation: 900m.
remarks: Rainfall 450mm. Wild. Seed.

PI 535690 donor id: 988. origin: Tunisia. collected: July 01,
1981. collector: W.L. Graves. collector id: 988.
locality: Rocky, basic, loam soil, Tunis vacant lot, El
Menzah district, Tunis Province. latitude: 36 deg. 47
min. N. longitude: 010 deg. 12 min. E. elevation: 50m.
remarks: Rainfall 500mm. Wild. Seed.

PI 535691 donor id: 993. origin: Tunisia. origin institute:
Tunisian Agronomy Institute (INAT). collected: June 15,
1981. collector: Dr. Zouaghi. collector id: 993. Wild.
Seed.

PI 535692. *Trifolium isthmocarpum* Brot. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555
Overland Avenue, San Diego, California, United States. Received May
23, 1988.

donor id: 412. origin: Tunisia. collected: June 01,
1981. collector: W.L. Graves. collector id: 412.
locality: Acid loam soil, roadside, Ain Sobah, GP7, 15km
to Tabarka, Tabarka Province. latitude: 36 deg. 57 min.
N. longitude: 008 deg. 57 min. E. elevation: 200m.
remarks: Rainfall 1000mm. Wild. Seed.

PI 535693. *Trifolium* sp. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 982. **origin:** Tunisia. **collected:** June 01, 1981. **collector:** W.L. Graves. **collector id:** 982.
locality: Acid, loamy soil, at road turnoff to Sidi-Mechrig, GP7 (Sedjnane to Tabarka), Sedjnane Province. **latitude:** 37 deg. 03 min. N. **longitude:** 009 deg. 08 min. E. **elevation:** 200m. **remarks:** Rainfall 1000mm. **received as:** *Trifolium filiforme*. Wild. Seed.

PI 535694 to 535695. *Trifolium striatum* L. FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535694 **donor id:** 995. **origin:** Tunisia. **collected:** May 15, 1981. **collector:** W.L. Graves. **collector id:** 995.
locality: Sandy, boggy, acid soil, mesa above beach, Sidi-Mechrig, Sedjnane Province. **latitude:** 35 deg. 38 min. N. **longitude:** 008 deg. 39 min. E. **elevation:** 50m. **remarks:** Rainfall 1000mm. Wild. Seed.

PI 535695 **donor id:** 8224. **origin:** Tunisia. **collected:** June 10, 1981. **collector:** W.L. Graves. **collector id:** 8224.
locality: Sandy, acid soil, boggy, mesa above beach, Sidi-Mechrig, Sedjnane Province. **latitude:** 37 deg. 10 min. N. **longitude:** 009 deg. 05 min. E. **elevation:** 50m. **remarks:** Rainfall 1000mm. Wild. Seed.

PI 535696 to 535734. *Trifolium subterraneum* L. FABACEAE Subterranean clover

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

PI 535696 **donor id:** 1B. **origin:** Tunisia. **collected:** June 15, 1981. **collector:** W.L. Graves. **collector id:** 1B.
locality: Hydromorphic, heavy clay, acid soil, near bridge on GP7 between town and INRAT station, Sedjenane, Sedjenane Province. **latitude:** 37 deg. 04 min. N. **longitude:** 009 deg. 15 min. E. **elevation:** 200m. **remarks:** Rainfall 800mm. Wild. Seed.

PI 535696 to 535734-continued

- PI 535697 donor id: 10B. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 10B. locality: Loam, pseudogley, calcareous soil, chaparral area, Sidi-Mechrig, Sedjenane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 03 min. E. elevation: 100m. remarks: Rainfall 1000mm, Soil pH 7.4. Wild. Seed.
- PI 535698 donor id: 11A. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 11A. locality: Sandy, pseudo-gley, forest opening, Sidi-Merhrig, Sedjnane Province. latitude: 37 deg. 10 min. N. longitude: 09 deg. 03 min. E. elevation: 100m. remarks: Rainfall 1000mm. Soil pH 6.1. Wild. Seed.
- PI 535699 donor id: 11I. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 11I. locality: Sandy soil, pseudogley, forest opening, Sidi-Mechrig, Sedjenane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 03 min. E. elevation: 100m. remarks: Rainfall 1000mm, Soil pH 6.1. Wild. Seed.
- PI 535700 donor id: 13B. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 13B. locality: Loamy, sandy soil, forest opening, Cap Negro, Sedjenane Province. latitude: 37 deg. 06 min. N. longitude: 008 deg. 59 min. E. elevation: 100m. remarks: Rainfall 1000mm, Soil pH 5.3. Wild. Seed.
- PI 535701 donor id: 13D. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 13D. locality: Forest opening, Cap Negro, Sedjenane Province. latitude: 37 deg. 06 min. N. longitude: 008 deg. 59 min. E. elevation: 100m. remarks: Rainfall 1000mm, Soil pH 5.3. Wild. Seed.
- PI 535702 donor id: 21A. origin: Tunisia. collected: June 13, 1981. collector: W.L. Graves. collector id: 21A. locality: Loam soil, Si Daoud, 10km from Haouaria on C26, Nebeul Province. latitude: 36 deg. 59 min. N. longitude: 010 deg. 56 min. E. elevation: 25m. remarks: Rainfall 500mm, Soil pH 8.3. Wild. Seed.
- PI 535703 donor id: 24. origin: Tunisia. origin institute: Tunisian Agronomy Institute (INAT). collected: June 15, 1981. collector: Dr. Zouaghi. collector id: 24. Wild. Seed.

PI 535696 to 535734-continued

- PI 535704 donor id: 27A. origin: Tunisia. collected: June 12, 1981. collector: W.L. Graves. collector id: 27A. locality: Loam soil, near Djebel Si, Abderrahmane, 12km to E of Menzel-Bou-Zelfa on road C43 to Menzel Temine, Nabeul Province. latitude: 36 deg. 40 min. N. longitude: 010 deg. 41 min. E. elevation: 200m. remarks: Rainfall 500mm, Soil pH 8.3. Wild. Seed.
- PI 535705 donor id: 27B. origin: Tunisia. collector: W.L. Graves. collector id: 27B. locality: 12km E of Menzel-Bou-Zelfa on road C43 to Menzel Temine, near Djebel Si Abderrahmane. latitude: 36 deg. 40 min. N. longitude: 10 deg. 41 min. E. elevation: 200m. remarks: Rainfall 500mm. Soil pH 8.3. Wild. Seed.
- PI 535706 donor id: 43F. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 43F. locality: Loamy clay soil, Ghardimaou, Jendouba Province. latitude: 36 deg. 27 min. N. longitude: 008 deg. 27 min. E. remarks: Rainfall 600mm, Soil pH 8.2. Wild. Seed.
- PI 535707 donor id: 45A. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 45A. locality: Brown forest soil, leached, sandy loam opening in oak forest near Algerian Tunisian border above Ghardimaou, El Feidja, Jendouba Province. latitude: 36 deg. 34 min. N. longitude: 008 deg. 22 min. E. elevation: 600m. remarks: Rainfall 800mm, Soil pH 6.1. Wild. Seed.
- PI 535708 donor id: 45B. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 45B. locality: Brown forest soil, leached, sandy loam opening in oak forest near Algerian Tunisian border above Ghardimaou, El Feidja, Jendouba Province. latitude: 36 deg. 34 min. N. longitude: 008 deg. 22 min. E. elevation: 600m. remarks: Rainfall 800mm, Soil pH 6.1. Wild. Seed.
- PI 535709 donor id: 45C. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 45C. locality: Brown forest soil, leached, sandy loam opening in oak forest near Algerian Tunisian border above Ghardimaou, El Feidja, Jendouba Province. latitude: 36 deg. 34 min. N. longitude: 008 deg. 22 min. E. elevation: 600m. remarks: Rainfall 800mm, Soil pH 6.1. Wild. Seed.

PI 535696 to 535734-continued

- PI 535710 donor id: 46B. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 46B. locality: Pseudogley loam soil, oak forest opening, between El Feidja and Ain Soltane, Tunisian-Algerian border above Ghardimaou, Jendouba Province. latitude: 36 deg. 33 min. N. longitude: 008 deg. 21 min. E. elevation: 600m. remarks: Rainfall 800mm, Soil pH 5.8. Wild. Seed.
- PI 535711 donor id: 48G. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 48G. locality: Loamy clay soil, Ghardimaou, Jendouba Province. latitude: 36 deg. 27 min. N. longitude: 008 deg. 27 min. E. elevation: 250m. remarks: Rainfall 800mm, Soil pH 8.2. Wild. Seed.
- PI 535712 donor id: 49A. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 49A. locality: Brown forest sandy soil, forest opening, near Algerian border above Ghardimaou, Ain Soltane, Jendouba Province. latitude: 36 deg. 32 min. N. longitude: 008 deg. 20 min. E. elevation: 600m. remarks: Rainfall 800mm, Soil pH 6.7. Wild. Seed.
- PI 535713 donor id: DMN5. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: DMN5. Wild. Seed.
- PI 535714 donor id: 83. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 83. remarks: Low formononetin strain. Wild. Seed.
- PI 535715 donor id: 84P. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 84P. remarks: Low formononetin strain. Wild. Seed.
- PI 535716 donor id: 86B. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 86B. remarks: Low formononetin strain. Wild. Seed.
- PI 535717 donor id: 91N. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 91N. remarks: Low formononetin strain. Wild. Seed.

PI 535696 to 535734-continued

- PI 535718 donor id: 93. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 93. remarks: Low formononetin strain. Wild. Seed.
- PI 535719 donor id: 97E. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 97E. remarks: Low formononetin strain. Wild. Seed.
- PI 535720 donor id: 97I. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 97I. remarks: Low formononetin strain. Wild. Seed.
- PI 535721 donor id: 100D. origin: Tunisia. origin institute: Tunisian Agricultural Exp. Sta. (INRAT). collected: June 15, 1981. collector: Mr. Seklani. collector id: 100D. remarks: Low formononetin strain. Wild. Seed.
- PI 535722 donor id: 400. origin: Tunisia. collected: June 20, 1981. collector: W.L. Graves. collector id: 400. locality: Clay soil, near grape vineyard, 10km from Mateur to Bizerte on GP11, Mateur Province. latitude: 37 deg. 05 min. N. longitude: 009 deg. 44 min. E. remarks: Rainfall 550mm, Soil pH 8+. Wild. Seed.
- PI 535723 donor id: 401. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 401. locality: Acid clay soil, Sidi-Mechrig dirt road, 10km from GP7 intersection, Sedjenane Province. latitude: 37 deg. 04 min. N. longitude: 009 deg. 04 min. E. elevation: 50m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535724 donor id: 402. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 402. locality: Acid sand soil, beach terrace, Sidi-Mechrig, Sedjenane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 04 min. E. elevation: 50m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535725 donor id: 403. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 403. locality: Acid sand soil, beach terrace, Sidi-Mechrig, Sedjenane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 04 min. E. elevation: 50m. remarks: Rainfall 1000mm. Wild. Seed.

PI 535696 to 535734-continued

- PI 535726 donor id: 404. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 404. locality: Sandy, acid soil, boggy, mesa above beach, Sidi Mechrig, Sedjenane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 05 min. E. elevation: 50m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535727 donor id: 405. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 405. locality: Sandy, acid soil, boggy, near Raouf's house, Sedjenane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 05 min. E. elevation: 25m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535728 donor id: 406. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 406. locality: Acid sand soil, beach terrace, Sidi-Mechrig, Sedjenane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 04 min. E. elevation: 50m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535729 donor id: 450. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 450. locality: Hydromorphic, heavy clay, acid soil, near bridge on GP7 between town and INRAT station, Sedjenane, Sedjenane Province. latitude: 37 deg. 04 min. N. longitude: 009 deg. 15 min. E. elevation: 200m. remarks: Rainfall 800mm. Wild. Seed.
- PI 535730 donor id: 451. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 451. locality: Hydromorphic, heavy clay, acid soil, near bridge on GP7 between town and INRAT station, Sedjenane, Sedjenane Province. latitude: 37 deg. 04 min. N. longitude: 009 deg. 15 min. E. elevation: 200m. remarks: Rainfall 800mm. Wild. Seed.
- PI 535731 donor id: 452. origin: Tunisia. collected: June 01, 1981. collector: W.L. Graves. collector id: 452. locality: Acid sand soil, beach terrace, Sidi-Mechrig, Sedjenane Province. latitude: 37 deg. 10 min. N. longitude: 009 deg. 04 min. E. elevation: 50m. remarks: Rainfall 1000mm. Wild. Seed.
- PI 535732 donor id: 453. origin: Tunisia. collected: June 15, 1981. collector: W.L. Graves. collector id: 453. locality: Clay to clay loam, basic soils, Saida, GP7, 15km from Tunis Ag. training school, Tunis Province. latitude: 36 deg. 49 min. N. longitude: 010 deg. 03 min. E. elevation: 50m. remarks: Rainfall 500mm. Wild. Seed.

PI 535696 to 535734-continued

PI 535733 **donor id:** 454. **origin:** Tunisia. **collected:** June 01, 1981. **collector:** W.L. Graves. **collector id:** 454. **locality:** Sand, acid soil, beach terrace, UCP-9.5km to Tabarka on GP7, Tabarka Province. **latitude:** 36 deg. 58 min. N. **longitude:** 008 deg. 50 min. E. **elevation:** 25m. **remarks:** Rainfall 1000mm. Wild. Seed.

PI 535734 **donor id:** 820. **origin:** Tunisia. **collected:** June 21, 1981. **collector:** W.L. Graves. **collector id:** 820. **locality:** Loam soil, near fort overlooking port, Kelibia (Cap Bon) Nebeul Province. **latitude:** 36 deg. 50 min. N. **longitude:** 011 deg. 06 min. E. **elevation:** 25m. **remarks:** Rainfall 450mm. Wild. Seed.

PI 535735. *Trigonella maritima* Del. ex Poiret FABACEAE

Donated by: Graves, W.L., University of California, Building 4, 5555 Overland Avenue, San Diego, California, United States. Received May 23, 1988.

donor id: 8229. **origin:** Tunisia. **collected:** June 23, 1981. **collector:** W.L. Graves. **collector id:** 8229. **locality:** Clay loam, basic soil, C35-Zaghouan to Tunis 32km to Bou Fichta, Zaghouan Province. **latitude:** 36 deg. 26 min. N. **longitude:** 010 deg. 18 min. E. **elevation:** 200m. **remarks:** Rainfall 450mm. Wild. Seed.

PI 535736. *Argyrolobium uniflorum* (Decne.) Jaub. & Spach FABACEAE

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. **remarks:** Received through Henricus C. Jansen, Chico State University while with FAO in 1985. Received May 23, 1989.

donor id: LI 85-3. **origin:** Libya. **collected:** September 25, 1984. **locality:** 40km SW of Etharyan, Tripolitania Province. **latitude:** 31 deg. 52 min. N. **longitude:** 012 deg. 48 min. E. **elevation:** 700m. **remarks:** Rainfall 150mm. Wild. Seed.

PI 535737. *Dactylis glomerata* var. *hispanica* (Roth) Koch POACEAE

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. **remarks:** Received through Henricus C. Jansen, Chico State University while with FAO in 1985. Received May 23, 1989.

PI 535737-continued

donor id: LI 85-1. origin: Libya. collected: May 15, 1985. locality: 15km N of Etharyan, Tripolitania Province. latitude: 32 deg. 20 min. N. longitude: 013 deg. 02 min. E. elevation: 800m. remarks: Rainfall less than 200mm. Wild. Seed.

PI 535738. *Medicago laciniata* (L.) Miller FABACEAE

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. remarks: Received through Henricus C. Jansen, Chico State University while with FAO in 1985. Received May 23, 1989.

donor id: LI 85-6. origin: Libya. collected: September 25, 1984. locality: 40km SW of Etharyan, Tripolitania Province. latitude: 31 deg. 52 min. N. longitude: 012 deg. 48 min. E. elevation: 700m. remarks: Rainfall 125mm. Wild. Seed.

PI 535739. *Medicago truncatula* Gaertner FABACEAE Barrelclover

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. remarks: Received through Henricus C. Jansen, Chico State University while with FAO in 1985. Received May 23, 1989.

donor id: LI 85-5. origin: Libya. collected: April 20, 1985. locality: 30km SW of Al Aziziyah, Tripolitania Province. latitude: 32 deg. 34 min. N. longitude: 012 deg. 56 min. E. elevation: 120m. remarks: Rainfall 175mm. Wild. Seed.

PI 535740. *Oryzopsis miliacea* (L.) Benth. & Hook. POACEAE Smilgrass

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. remarks: Received through Henricus C. Jansen, Chico State University while with FAO in 1985. Received May 23, 1989.

donor id: LI 85-4. origin: Libya. collected: May 01, 1985. locality: Tripoli, Tripolitania Province. latitude: 35 deg. 54 min. N. longitude: 012 deg. 12 min. E. elevation: 100m. remarks: Rainfall 200mm. Cultivated. Seed.

PI 535741. *Trigonella anguina* Del. FABACEAE

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States.
remarks: Received through Henricus C. Jansen, Chico State University while with FAO in 1985. Received May 23, 1989.

donor id: LI 85-2. **origin:** Libya. **collected:** April 29, 1985. **locality:** 30km SW of Al Aziziyah, Tripolitania Province. **latitude:** 32 deg. 34 min. N. **longitude:** 012 deg. 56 min. E. **elevation:** 120m. **remarks:** Rainfall 175mm. Wild. Seed.

PI 535742 to 535746. *Dactylis glomerata* L. POACEAE Orchardgrass

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States.
remarks: 1985 Moroccan collection for the Utah State University RM project. Received May 23, 1989.

PI 535742 **donor id:** MA 85-73. **origin:** Morocco. **collected:** July 09, 1985. **locality:** Basic calcareous, loam to sandy soil, 31km from Tazanakitt off NR 32, 1.0km S of P32, Tasrirt, Ouarzazate Province. **elevation:** 1700m. **remarks:** Rainfall 180mm. Soil pH 8.0. Donated by John Harding, Ministry of Agriculture. Wild. Seed.

PI 535743 **donor id:** MA 85-109. **origin:** Morocco. **collected:** July 12, 1985. **locality:** Rocky loam basic soil, dirt road, No. 3444, 17km E of Msemrir, Ouarzazate Province. **elevation:** 2100m. **remarks:** Rainfall 200mm. Soil pH 8.0. Wild. Seed.

PI 535744 **donor id:** MA85-157. **origin:** Morocco. **collected:** July 22, 1985. **locality:** Loam, rocky, calcareous soil, P21 (paved road), 29km SE of Midelt, Midelt Province. **elevation:** 2000m. **remarks:** Rainfall 400mm. Soil pH 8.0. Wild. Seed.

PI 535745 **donor id:** MA 85-163. **origin:** Morocco. **collected:** July 23, 1985. **locality:** Sandy to loam, rocky, calcareous hardpan, basic soil, 44.5km N of Midelt on NR P20, Midelt Province. **elevation:** 1550m. **remarks:** Rainfall 250mm. Soil pH 8.0. Wild. Seed.

PI 535746 **donor id:** MA 85-171. **origin:** Morocco. **collected:** July 24, 1985. **locality:** Loam, calcareous, basic soil, protected area, 11km S of Midelt on RS 3424, Midelt Province. **elevation:** 1750m. **remarks:** Rainfall 250mm. Soil pH 8.0. Wild. Seed.

PI 535747. *Festuca mairei* St. -yves POACEAE

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States.
remarks: 1985 Moroccan collection for the Utah State University RM project. Received May 23, 1989.

donor id: MA 85-105. **origin:** Morocco. **collected:** July 12, 1985. **locality:** Loam, basic soil, 4km E of Msemrir, No. 3444 (dirt road), Ouarzazate Province. **elevation:** 2000m. **remarks:** Rainfall 200mm. Soil pH 8.0. Wild. Seed.

PI 535748 to 535749. *Medicago laciniata* (L.) Miller FABACEAE

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States.
remarks: 1985 Moroccan collection for the Utah State University RM project. Received May 23, 1989.

PI 535748 **donor id:** MA 85-217. **origin:** Morocco. **collected:** July 29, 1985. **locality:** Loam, shallow, calcareous hard pan, basic soil, 62km SE of Chemaia, 6526 (dirt road), Sidi Chikar, Marrakech Province. **elevation:** 250m. **remarks:** Rainfall 150mm. Soil pH 8.0. Wild. Seed.

PI 535749 **donor id:** MA 85-218. **origin:** Morocco. **collected:** July 29, 1985. **locality:** Loam, shallow, calcareous hard pan, basic soil, 40km S of Chemaia, S511, Lahgaf, Marrakech Province. **elevation:** 250m. **remarks:** Rainfall 150mm. Soil pH 8.0. Wild. Seed.

PI 535750 to 535751. *Medicago polymorpha* L. FABACEAE California burclover

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States.
remarks: 1985 Moroccan collection for the Utah State University RM project. Received May 23, 1989.

PI 535750 **donor id:** MA 85-144. **origin:** Morocco. **collected:** July 18, 1985. **locality:** Loamy, calcareous, basic soil, 39.7km NE of Ain Beni Mathar, 5346 (dirt road), Oujda Province. **elevation:** 1000m. **remarks:** Rainfall 200mm. Soil pH 8.0. Wild. Seed.

PI 535751 **donor id:** MA 85-215. **origin:** Morocco. **collected:** July 29, 1985. **locality:** Loamy, shallow calcareous, basic soil, 62km SE of Chemaia, 6526 (dirt road), Sidi Chikar, Marrakech Province. **elevation:** 350m. **remarks:** Rainfall 150mm. Soil pH 8.0. Wild. Seed.

PI 535752. *Medicago truncatula* Gaertner FABACEAE Barrelclover

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. Received May 23, 1988.

donor id: MA 85-120. **origin:** Morocco. **collected:** July 15, 1985. **locality:** Loamy, calcareous hard pan, basic soil, 38km S of Oujda on RN No.19, Oujda Province. **elevation:** 900m. **remarks:** Rainfall 200mm. Soil pH 8.0. Wild. Seed.

PI 535753 to 535756. *Oryzopsis miliacea* (L.) Benth. & Hook. POACEAE Smilgrass

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. **remarks:** 1985 Moroccan collection for the Utah State University RM project. Received May 23, 1989.

PI 535753 **donor id:** MA 85-79. **origin:** Morocco. **collected:** July 09, 1985. **locality:** Basic, calcareous, loamy soil, 71km W from Ouarzazate on Route P32, Tasrirte, Ouarzazate Province. **elevation:** 1500m. **remarks:** Rainfall 150mm. Soil pH 8.0. Wild. Seed.

PI 535754 **donor id:** MA 85-114. **origin:** Morocco. **collected:** July 13, 1985. **locality:** Loamy sand, calcareous hard pan, shallow basic soil, 34km E of Guercif, Goutitir RN No.1, Guercif, Oujda Province. **elevation:** 600m. **remarks:** Rainfall 150mm. Soil pH 8.0. Wild. Seed.

PI 535755 **donor id:** MA 85-126. **origin:** Morocco. **collected:** July 15, 1985. **locality:** Loamy, shallow, calcareous hardpan, basic soil, 29.7km S of Oujda, No.RS5338 (dirt road), Jerada, Oujda Province. **elevation:** 1000m. **remarks:** Rainfall 250mm. Soil pH 8.0. Wild. Seed.

PI 535756 **donor id:** MA 85-209. **origin:** Morocco. **collected:** July 29, 1985. **locality:** Sandy to loam, shallow, calcareous, basic soil, 43km S of Chemaia, S511 (dirt road), Sidi Chikar, Marrakech Province. **elevation:** 250m. **remarks:** Rainfall 150mm. Soil pH 8.0. Wild. Seed.

PI 535757. *Sanguisorba minor* ROSACEAE Small burnet

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. **remarks:** 1985 Moroccan collection for the Utah State University RM project. Received May 23, 1989.

PI 535757-continued

donor id: MA 85-150. **origin:** Morocco. **collected:** July 18, 1985. **locality:** Loam, rocky, shallow, basic soil, 42.2km S of Oujda on RN P19, Ain Beni Mathar, Oujda Province. **elevation:** 1100m. **remarks:** Rainfall 300mm. Soil pH 8.0. Wild. Seed.

PI 535758 to 535759. *Trifolium subterraneum* L. FABACEAE Subterranean clover

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. Received May 23, 1989.

PI 535758 **donor id:** SP 59. **origin:** Spain. **origin institute:** INIA, Badajoz, APDO 22, 06080. **origin institute id:** L.O. 59. **collected:** November 10, 1967. **collector:** Carlos Gomez Pitera. **collector id:** 1-68015. **locality:** Deep, loam to clay soil, Barcarrota, Badajoz Province. **latitude:** 38 deg. 30 min. N. **longitude:** 006 deg. 51 min. E. **elevation:** 460m. **remarks:** Seeds hard, cream colored. Low oestrogenic type. Rainfall 650mm. Wild. Seed.

PI 535759 **donor id:** SP 1142. **origin:** Spain. **origin institute:** INIA, Badajoz, APDO 22, 06080. **origin institute id:** L.O. 1142. **collected:** March 20, 1973. **collector:** Carlos Gomez Pitera. **collector id:** 73-EDB. **locality:** Shallow, sandy, soils, low water retention, 6km S of Camparario, La Serena El Censo, Badajoz. **latitude:** 38 deg. 49 min. N. **longitude:** 005 deg. 40 min. E. **elevation:** 450m. **remarks:** Seeds hard, low oestrogenic type. Rainfall 400mm. Wild. Seed.

PI 535760 to 535765. *Trifolium subterraneum* L. FABACEAE Subterranean clover

Donated by: Graves, W.L, Cooperative Extension-San Diego County, Building 4, 5555 Overland Ave, San Diego, California, United States. Received May 23, 1988.

PI 535760 **origin:** Australia. **local name:** Today-B. **collected:** June 1982. **remarks:** Seeds hard. Low oestrogenic type. Local ecotype received from W. Collins, Dept. of West Australia. Wild. Seed.

PI 535761 **origin:** Australia. **local name:** Baulkanaugh. **collected:** June 1982. **remarks:** Seeds hard. Low oestrogenic type. Local ecotype received from W. Collins, Dept. of West Australia. Wild. Seed.

PI 535760 to 535765-continued

- PI 535762 **origin:** Australia. **local name:** Mulwala. **collected:** June 1982. **remarks:** Seeds hard. Low oestrogenic type. Local ecotype received from W. Collins, Dept. of West Australia. Wild. Seed.
- PI 535763 **origin:** Australia. **local name:** Bellevue. **collected:** June 1982. **remarks:** Seeds hard. Low oestrogenic type. Local ecotype received from W. Collins, Dept. of West Australia. Wild. Seed.
- PI 535764 **origin:** Australia. **local name:** Graylands. **collected:** June 1982. **remarks:** Seeds hard. Low oestrogenic type. Local ecotype received from W. Collins, Dept. of West Australia. Wild. Seed.
- PI 535765 **donor id:** CPI 15077 (SA). **origin:** Turkey. **collected:** 1951. **collector:** C.M. Donald; J.F. Miles. **locality:** Slope, granite soil along Maquis, 17km from Menemen to Izmir. **elevation:** 75m. **remarks:** Donated by Dept. of Southern Australia. Flowers in 93 days. Seeds hard. Low oestrogen type. Seed received from Eric Crawford, Dept. of South Australia. Wild. Seed.

PI 535766 to 535771. *Triticum aestivum* L. POACEAE Common wheat

Donated by: Cox, T.S., USDA-ARS, Dept. of Agronomy, Throckmorton Hall, Kansas State University, Manhattan, Kansas, United States. **remarks:** Developed cooperatively by the Kansas Agricultural Experiment Station, USDA-ARS, and the Wheat Genetics Resources Center and released September, 1989. Received September 06, 1989.

- PI 535766 **donor id:** KS89WGRC3. **origin:** United States. **pedigree:** TA 1642/2*Wichita, BC1F2 selfed progeny selection. **remarks:** Hard red germplasm with resistance to Hessian fly. Plants similar to Wichita, maturing slightly later. Seed yield 75% of Wichita in replicated tests in Manhattan, Kansas. Susceptible to leaf rust (*Puccinia recondita*), and soilborne mosaic virus. **insect resistance:** Hessian fly (*Mayetiola destructor*) biotype D. Winter Annual. Breeding Material. Seed.
- PI 535767 **donor id:** KS89WGRC4. **origin:** United States. **pedigree:** TA 1695/3*Wichita, BC2F2 selfed progeny selection. **remarks:** Hard red germplasm with resistance to Hessian fly and greenbug. Plant height and phenotype similar to Wichita. Susceptible to leaf rust (*Puccinia recondita*). **insect resistance:** Hessian fly (*Mayetiola destructor*) biotype D. Greenbug (*Schizaphis graminum*) biotype E. Winter Annual. Breeding Material. Seed.

PI 535766 to 535771-continued

- PI 535768 **donor id:** KS89WGRC5. **origin:** United States. **pedigree:** TA 1695/3*Wichita, BC2F2 progeny selection. **remarks:** Hard red germplasm with resistance to soilborne mosaic virus. Plant height and phenotype similar to Wichita. Susceptible to leaf rust (*Puccinia recondita*). **disease resistance:** Soilborne mosaic virus. **insect resistance:** Segregating for Hessian fly (*Mayetiola destructor*). Winter Annual. Breeding Material. Seed.
- PI 535769 **donor id:** KS89WGRC6. **origin:** United States. **pedigree:** TA 2452/TA 1645/2/2*Wichita/3/Newton, F2 plant progeny. **remarks:** Hard red germplasm with resistance to Hessian fly (*Mayetiola destructor*) biotype D. Plant height similar to Wichita. Susceptible to leaf rust (*Puccinia recondita*) and soilborne mosaic virus. **insect resistance:** Hessian fly (*Mayetiola destructor*) biotype D. Winter Annual. Genetic Material. Seed.
- PI 535770 **donor id:** KS89WGRC7. **origin:** United States. **pedigree:** Wichita /2/TA 1649/2*Wichita. **remarks:** Hard red germplasm with resistance to leaf rust. Plants similar to Wichita in height, maturity and general phenotype. Susceptible to soilborne mosaic virus and Hessian fly (*Mayetiola destructor*). **disease resistance:** Moderate to leaf rust (*Puccinia recondita*). Winter Annual. Breeding Material. Seed.
- PI 535771 **donor id:** KS87UP9. **origin:** United States. **pedigree:** More than 100 lines randomly mated for three generations. **remarks:** Hard red population segregating for dominant gene Ms3 (cause of male sterility) and carries genes for resistance to soilborne mosaic and spindle-streak mosaic viruses, leaf and stem rusts, *Septoria* leaf blotch, Hessian fly, and for high productivity and breadmaking quality. Expected segregation ratio for male sterility and fertility 1:1. Potential use in recurrent selection and genetic studies. Winter Annual. Breeding Material. Seed.

PI 535772. *Sorghum bicolor* (L.) Moench POACEAE Sudangrass

Donated by: Gorz,, H.J., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Haskins, F.A., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Vogel, K.P., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States. **remarks:** Developed cooperatively by USDA-ARS and the Nebraska Agricultural Research Division and released April, 1989. Received September 15, 1989.

PI 535772-continued

donor id: NP 28. **origin:** United States. **pedigree:** Composite using some ms3 females of 90 low-dhurrin highly self-pollinated sudangrass lines from low-dhurrin 'Piper' and Wisconsin breeding selections and sudangrass B-lines. **other id:** GP-236. **group:** CSR-SORGHUM. **remarks:** Germplasm source of low-dhurrin lines. Mean height at maturity 199cm. Plant color tan. Leaf midribs white (one line with green). Days to anthesis 59. Glums mostly straw colored. Caryopsis brown. Hydrocyanic acid potential (HCN-p) mean 163.4 mg per kg fresh weight. Homozygosity will permit large numbers of true breeding lines from one generation of selfing. Requires special regeneration handling. Annual. Breeding Material. Seed.

PI 535773. *Sorghum bicolor* (L.) Moench POACEAE Sudangrass

Donated by: Haskins, F.A., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Gorz, H.J., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Vogel, K.P., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States. **remarks:** Developed cooperatively by USDA-ARS and the Nebraska Agricultural Research Division and released April, 1989. Received September 15, 1989.

donor id: NP29. **origin:** United States. **pedigree:** Low-dhurrin random mating sudangrass population harvested from ms3 plants in recurrent selection with populations tolerant to spring seeding. **other id:** GP-237. **group:** CSR-SORGHUM. **remarks:** Germplasm with diverse sources of low-dhurrin, improved tolerance to early spring seeding, using ms3 gene for male-sterility. Plant height average at maturity 235cm. Plants purple or tan with white or green midribs in equal numbers. Glumes black, mahogany or sienna color. Caryopsis brown. Hydrocyanic acid potential (HCN-p) means 202mg per kg fresh weight for fertile bulk, 274mg for male-sterile bulk. Annual. Breeding Material. Seed.

PI 535774. *Sorghum bicolor* (L.) Moench POACEAE Sudangrass

Donated by: Gorz, H.J., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Haskins, F.A., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Vogel, K.P., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States. **remarks:** Developed cooperatively by USDA-ARS and the Nebraska Agricultural Research Division and released April, 1989. Received September 15, 1989.

donor id: NP30. **origin:** United States. **pedigree:** Low-dhurrin random mating sudangrass population harvested from ms3 plants using 85 S1 families with superior regrowth potential. **other id:** GP-238. **group:** CSR-SORGHUM. **remarks:** Germplasm source of low-dhurrin and improved regrowth after repeated harvesting. Plant height average at maturity 240cm. Segregates for plant color as well as leaf midrib (white or green). Glumes mostly black, mahogany and sienna. Caryopsis brown. Hydrocyanic acid potential (HCN-p) means 252mg per kg fresh weight for fertile bulk and 248mg per kg for male-sterile bulk. Requires special regeneration handling. Annual. Breeding Material. Seed.

PI 535775 to 535776. *Sorghum bicolor* (L.) Moench POACEAE Sudangrass

Donated by: Haskins, F.A., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Gorz, H.J., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Vogel, K.P., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States. **remarks:** Developed cooperatively by USDA-ARS and the Nebraska Agricultural Research Division and released April, 1989. Received September 15, 1989.

PI 535775 **donor id:** NP31. **origin:** United States. **pedigree:** Low-dhurrin composite of three sudangrass populations harvested from ms3 plants blended in equal amounts. **other id:** GP-239. **group:** CSR-SORGHUM. **remarks:** Germplasm source of low-dhurrin and ms3 gene for male-sterility for sudangrass breeding programs. Plant height average at maturity 233cm. Segregates for midrib and plant color. Glume color varies from black and mahogany to sienna. Caryopsis brown. Hydrocyanic acid potential (HCN-p) means 225mg per kg fresh weight for fertile bulk and 216mg for male-sterile bulk. Requires special regeneration care. Annual. Breeding Material. Seed.

PI 535776 **donor id:** NP32. **origin:** United States. **pedigree:** Open-pollinated, low-dhurrin F6 selection from high dhurrin sudangrass B-line by low-dhurrin selection from 'Piper'. **other id:** GP-240. **group:** CSR-SORGHUM. **remarks:** Germplasm source of low-dhurrin and sudangrass B breeding lines. Plant height average 220cm. Plant color tan. Midrib white. Glumes straw-colored. Caryopsis light tan to brown. Hydrocyanic acid potential (HCN-p) means 131mg per kg fresh weight. Requires special regeneration handling. Annual. Breeding Material. Seed.

PI 535777 to 535779. Sorghum bicolor (L.) Moench POACEAE Sudangrass

Donated by: Gorz, H.J., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Haskins, F.A., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Vogel, K.P., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States. **remarks:** Developed cooperatively by USDA-ARS and the Nebraska Agricultural Research Division and released April, 1989. Received September 15, 1989.

PI 535777 **donor id:** NP33. **origin:** United States. **pedigree:** Sudangrass population obtained by interpollination of 25 lines selected from 42 superior lines with lodging & disease resistance, leafiness, tillering and seed production from the Purdue Agricultural Experiment Station. **other id:** GP-241. **group:** CSR-SORGHUM. **remarks:** Germplasm source of broad range of genetic diversity for agronomic traits. Plant height average at maturity 175cm. Plants mostly tan color. Midribs green. Glumes black and mahogany. Caryopsis brown. Hydrocyanic acid potential (HCN-p) mean 67mg per kg fresh weight. Requires special regeneration handling. Annual. Breeding Material. Seed.

PI 535778 **donor id:** NP34. **origin:** United States. **pedigree:** Sudangrass population segregating ms3 gene obtained by intermating from a topcross of 25 lines of NP33 onto ms3 plants of NP25 (low-dhurrin sudangrass germplasm). **other id:** GP-242. **group:** CSR-SORGHUM. **remarks:** Germplasm source of broad range of genetic diversity, and R-lines which segregate for Hydrocyanic acid potential (HCN-p) and the ms3 male-sterility allele. Plant height average at maturity 230cm. Plants tan color. Midrib white. Glumes black, mahogany and sienna. Caryopsis brown. Lodging resistance excellent. HCN-p means 457mg per kg fresh weight for fertile bulk, 400mg per kg for male-sterile bulk. Annual. Breeding Material. Seed.

PI 535779 **donor id:** NP35. **origin:** United States. **pedigree:** Sudangrass population of selected plants low in HCN-p from the NP34 male sterile (ms3) bulk. **other id:** GP-243. **group:** CSR-SORGHUM. **remarks:** Germplasm low-dhurrin source with broad range of genetic diversity for agronomic characteristics, and ms3 gene for male-sterility. Plant height average at maturity 190cm. Segregates for plant and midrib color. Glumes black, mahogany and sienna. Caryopsis brown. Requires special regeneration handling. Annual. Breeding Material. Seed.

PI 535780 to 535781. Sorghum bicolor (L.) Moench POACEAE Sorghum

Donated by: Gorz, H.J., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Haskins, F.A.; Johnson, B.E., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Sotomayor-Rios, A., Tropical Agriculture Research Station, USDA-ARS, Mayaguez, Puerto Rico. **remarks:** Developed cooperatively by USDA-ARS and the Nebraska Agricultural Research Division and released April, 1989. Received September 15, 1989.

PI 535780 **donor id:** NP36. **origin:** United States. **pedigree:** Random mating sorghum population selected from RP2B after 8 cycles of S1 family selection using ms3 to facilitate recombination for lower dhurrin content. **other id:** GP-244. **group:** CSR-SORGHUM. **remarks:** Population source using ms3 of reduced dhurrin content and A- and B-lines for use in producing low-dhurrin hybrids. Plant height average at maturity 100cm. Plant color purple. Caryopsis white to brown. Midrib green. Segregates for genetic male sterility (ms3). Requires special regeneration handling. Annual. Breeding Material. Seed.

PI 535781 **donor id:** NP37. **origin:** United States. **pedigree:** Combination of two random-mated sorghum populations using ms3 plants and incorporating bmr-6 for brown midrib and PR2B. **other id:** GP-245. **group:** CSR-SORGHUM. **remarks:** Population source using ms3 of reduced dhurrin content and A- and B- lines, for use in producing low-dhurrin sorghum- sudangrass or forage sorghum hybrids, with bmr-6 gene for brown midrib. Plant height average at maturity 110cm. Plants purple. Midrib brown. Caryopsis white. Segregates for genetic male-sterility (ms3). HCN-p mean 597mg per kg fresh weight for male-sterile bulk. Annual. Breeding Material. Seed.

PI 535782 to 535796. Sorghum bicolor (L.) Moench POACEAE Sorghum

Donated by: Gorz, H.J., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Haskins, F.A., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Johnson, B.E., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States. **remarks:** Developed cooperatively by USDA-ARS and the Nebraska Agricultural Research Division and released April, 1989. Received September 15, 1989.

PI 535782 to 535796-continued

- PI 535782 **donor id:** N97. **origin:** United States. **pedigree:** Inbred sorghum R-line with reduced dhurrin content selected from RP2B population. Bulk of 2 S4 families. **other id:** GP-246. **group:** CSR-SORGHUM. **remarks:** Germplasm R-line with low-dhurrin content. Plant height at maturity 135cm. Plants purple. Midribs green. Days to anthesis 64. Caryopsis white. HCN-p mean 474mg per kg fresh weight. Annual. Breeding Material. Seed.
- PI 535783 **donor id:** N98. **origin:** United States. **pedigree:** AN39/2/4*N4692/Rio/3/Waconia/4/Fremont. Composite of 4 F6 sorghum lines. **other id:** GP-247. **group:** CSR-SORGHUM. **remarks:** Inbred germplasm with earlier maturity and improved adaption in the Central Great Plains. Days to heading 69. Plant height at maturity 250cm. Plants purple. Midrib green. Caryopsis dark brown. Brix 21%. Annual. Breeding Material. Seed.
- PI 535784 **donor id:** N99. **origin:** United States. **pedigree:** Fremont/Thesis, F7 sorghum Selection. **other id:** GP-248. **group:** CSR-SORGHUM. **remarks:** Inbred germplasm with earlier maturity and improved adaption in the Central Great Plains. Days to heading 58. Plant height at maturity 235cm. Caryopsis light brown. Brix 20% brown. Brix 20%. Annual. Breeding Material. Seed.
- PI 535785 **donor id:** N100. **origin:** United States. **pedigree:** Waconia /Wray, F7 sorghum Selection. **other id:** GP-249. **group:** CSR-SORGHUM. **remarks:** Germplasm with earlier maturity and improved adaption in the Central Great Plains. Days to heading 80. Plant height at maturity 270cm. Caryopsis light brown. Brix 18%. Annual. Breeding Material. Seed.
- PI 535786 **donor id:** N101. **origin:** United States. **pedigree:** RP2B sorghum population selection with lower HCN-p followed by more than 6 crosses of the cytoplasmic male-sterile to recurrent male parent. Male selfed for more than 6 generations. **other id:** GP-250. **group:** CSR-SORGHUM. **remarks:** Combine-height grain type germplasm with lower HCN-p for use in producing low HCN-p sorghum-sudangrass hybrids or grain sorghums with reduced HCN-p. Height 120cm. Plant color purple. Midrib green. Caryopsis white. HCN-p mean 442mg per kg fresh weight. Annual. Breeding Material. Seed.

PI 535782 to 535796-continued

- PI 535787 **donor id:** N102. **origin:** United States. **pedigree:** RP2B sorghum population selection with lower HCN-p followed by 3 crosses of the cytoplasmic male-sterile to recurrent parent. Male selfed 4 generations. **other id:** GP-251. **group:** CSR-SORGHUM. **remarks:** Combine-height grain type germplasm with lower HCN-p for use in producing low HCN-p sorghum-sudangrass hybrids or grain sorghums with reduced HCN-p. Height 120cm. Plant color purple. Midrib green. Caryopsis white. Annual. Breeding Material. Seed.
- PI 535788 **donor id:** N103. **origin:** United States. **pedigree:** RP2B sorghum population selection with lower HCN-p followed by more than 6 crosses of cytoplasmic male-sterile to recurrent male parent. Male selfed for more than 6 generations. **other id:** GP-252. **group:** CSR-SORGHUM. **remarks:** Combine-height grain type germplasm with lower HCN-p from RP2B population for use in producing low HCN-p sorghum-sudangrass hybrids or source of grain sorghum with reduced HCN-p. Height average 150cm. Plants purple. Midribs brown. Caryopsis white. HCN-p mean 677mg. per kg fresh weight. Annual. Breeding Material. Seed.
- PI 535789 **donor id:** N104. **origin:** United States. **pedigree:** Bloomless Redlan (BRedlan bml)/Brown midrib Redlan (BRedlan bmr-6). F6 sorghum plants with bloom and green midrib crossed with ARedlan for A- and B-lines. **other id:** GP-253. **group:** CSR-SORGHUM. **remarks:** Germplasm source for use in production of hybrids, breeding programs and studies in which the bloomless and brown midrib traits effect forage quality and other agronomic traits. Plant height 120cm. Plants purple with bloom. Midrib green. Caryopsis light brown. Similar to Redlan, except presence of bloomless and/or brown midrib traits. Annual. Breeding Material. Seed.
- PI 535790 **donor id:** N105. **origin:** United States. **pedigree:** Bloomless Redlan (BRedlan bml)/Brown midrib Redlan (BRedlan bmr-6). F6 sorghum plants with bloom and green midrib crossed with ARedlan for A- and B-lines. **other id:** GP-254. **group:** CSR-SORGHUM. **remarks:** Germplasm source for use in production of hybrids, breeding programs and studies in which the bloomless and brown midrib traits effect forage quality and other agronomic traits. Plant height 115cm. Plants purple with bloom. Midrib brown. Caryopsis light brown. Similar to Redlan, except presence of bloomless and/or brown midrib traits. Annual. Breeding Material. Seed.

PI 535782 to 535796-continued

- PI 535791 **donor id:** N106. **origin:** United States. **pedigree:** Bloomless Redlan (BRedlan bml)/Brown midrib Redlan (BRedlan bmr-6). F6 sorghum plants with bloom and green midrib crossed with ARedlan for A- and B-lines. **other id:** GP-255. **group:** CSR-SORGHUM. **remarks:** Germplasm source of for use in production of hybrids, breeding programs and studies in which the bloomless and brown midrib traits effect forage quality and other agronomic traits. Plant height 130cm. Plants purple, bloomless. Midrib green. Caryopsis light brown. Similar to Redlan, except presence of bloomless and/or brown midrib traits. Annual. Breeding Material. Seed.
- PI 535792 **donor id:** N107. **origin:** United States. **pedigree:** Bloomless Redlan (BRedlan bml)/Brown midrib Redlan (BRedlan bmr-6). F6 sorghum plants with bloom and green midrib crossed with ARedlan for A- amd B-lines. **other id:** GP-256. **group:** CSR-SORGHUM. **remarks:** Germplasm source for use in production of hybrids, breeding programs and studies in which the bloomless and brown midrib traits effect forage quality and other agronomic traits. Plant height 109cm. Plants purple, bloomless. Midrib brown. Caryopsis light brown. Similar to Redlan, except presence of bloomless and/or brown midrib traits. Annual. Breeding Material. Seed.
- PI 535793 **donor id:** N108. **origin:** United States. **cultivar:** Saccharum-Sorgo. **pedigree:** Saccharum-Sorgo. **other id:** GP-257. **group:** CSR-SORGHUM. **remarks:** Inbred germplasm source of sweet sorghum female parent for use in hybrids and breeding programs. Days to bloom 75. Plant height 162cm. Plants tan. Midribs green. Caryopsis light tan. Brix (sugar) 17%. Annual. Breeding Material. Seed.
- PI 535794 **donor id:** N109. **origin:** United States. **pedigree:** White Collier/Grain Sorghum Line. **other id:** GP-258. **group:** CSR-SORGHUM. **remarks:** inbred germplasm source of sweet sorghum female parent for use in hybrids and breeding programs. Days to bloom 75. Plant height 143cm. Plants purple. Midrib green. Caryopsis w white. Brix (sugar) 19%. Annual. Breeding Material. Seed.
- PI 535795 **donor id:** N110. **origin:** United States. **cultivar:** Redlan X. **other id:** GP-259. **group:** CSR-SORGHUM. **remarks:** Inbred germplasm source of sweet sorghum female parent for use in hybrids and breeding programs. Days to bloom 73. Plant height 256cm. Plants purple. Midrib green. Caryopsis brown. Brix (sugar)20%. Annual. Breeding Material. Seed.

PI 535782 to 535796-continued

PI 535796 donor id: N111. origin: United States. cultivar: Waconia. pedigree: Selection from Waconia. other id: GP-260. group: CSR-SORGHUM. remarks: Inbred germplasm source of sweet sorghum female parent for use in hybrids and breeding programs. Days to bloom 75. Plant height 260cm. Plants purple. Midrib green. Caryopsis brown. Brix (swugar) 20%. Annual. Breeding Material. Seed.

PI 535797 to 535806. Sorghum bicolor (L.) Moench POACEAE Sorghum

Donated by: Gorz, H.J., USDA-ARS, Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Haskins, F.A., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States; and Vogel, K.P., Department of Agronomy, University of Nebraska, Lincoln, Nebraska, United States. remarks: Developed cooperatively by USDA-ARS and the Nebraska Agricultural Research Division and released April, 1989. Received September 15, 1989.

PI 535797 donor id: N112. origin: United States. pedigree: High-HCN-p B-line/Low HCN-p 'Piper' selections selfed for more than 6 generations. other id: GP-261. group: CSR-SORGHUM. remarks: Germplasm source of reduced HCN-p. Plant height at maturity 210cm. Plant color tan. Midrib white. Glumes straw color. Caryopsis light tan. HCN-p mean 182mg per kg fresh weight. Annual. Breeding Material. Seed.

PI 535798 donor id: N113. origin: United States. pedigree: High-HCN-p B-line/Low-HCN-p 'Piper' selections selfed for more than 6 generations. other id: GP-262. group: CSR-SORGHUM. remarks: Germplasm source of reduced HCN-p. Plant height at maturity 190cm. Plant color tan. Midrib white. Glumes straw color. Caryopsis light tan. HCN-p mean 131mg per kg fresh weight. Annual. Breeding Material. Seed.

PI 535799 donor id: N114. origin: United States. pedigree: High-HCN-p B-line/Low-HCN-p 'Piper' selections selfed for more than 6 generations. other id: GP-263. group: CSR-SORGHUM. remarks: Germplasm source of reduced HCN-p. Plant height at maturity 200cm. Plant color tan. Midrib white. Glumes straw color. Caryopsis light tan. HCN-p mean 151mg per kg fresh weight. Annual. Breeding Material. Seed.

PI 535797 to 535806-continued

- PI 535800 **donor id:** N115. **origin:** United States. **pedigree:** High-HCN-p B-line/Low-HCN-p 'Piper' selections selfed for more than 6 generations. **other id:** GP-264. **group:** CSR-SORGHUM. **remarks:** Germplasm source of reduced HCN-p. Plant height at maturity 185cm. Plant color tan. Midrib white. Glumes straw color. Caryopsis light tan. HCN-p mean 276mg per kg fresh weight. Annual. Breeding Material. Seed.
- PI 535801 **donor id:** N116. **origin:** United States. **pedigree:** High-HCN-p B-line/Low-HCN-p 'Piper' selections selfed for more than 6 generations. **other id:** GP-265. **group:** CSR-SORGHUM. **remarks:** Germplasm source of reduced HCN-p. Plant height at maturity 188cm. Plant color tan. Midrib white. Glumes straw color. Caryopsis light tan. HCN-p mean 180mg per kg fresh weight. Annual. Breeding Material. Seed.
- PI 535802 **donor id:** N117. **origin:** United States. **pedigree:** High-HCN-p B-line/Low-HCN-p 'Piper' selections selfed for more than 6 generations. **other id:** GP-266. **group:** CSR-SORGHUM. **remarks:** Germplasm source of reduced HCN-p. Plant height at maturity 190cm. Plant color tan. Midrib white. Glumes straw color. Caryopsis light tan. HCN-p mean 356mg per kg fresh weight. Annual. Breeding Material. Seed.
- PI 535803 **donor id:** N118. **origin:** United States. **pedigree:** High-HCN-p B-line/Low-HCN-p 'Piper' selections selfed for more than 6 generations. **other id:** GP-267. **group:** CSR-SORGHUM. **remarks:** Germplasm source of reduced HCN-p. Plant height at maturity 160cm. Plant color tan. Midrib white. Glumes straw color. Caryopsis light tan. HCN-p mean 459mg per kg fresh weight. Annual. Breeding Material. Seed.
- PI 535804 **donor id:** N119. **origin:** United States. **pedigree:** High-HCN-p B-line/Low-HCN-p 'Piper' selections selfed for more than 6 generations. **other id:** GP-268. **group:** CSR-SORGHUM. **remarks:** Germplasm source of reduced HCN-p. Plant height at maturity 160cm. Plant color tan. Midrib green. Glumes straw color. Caryopsis light tan. HCN-p mean 410mg per kg fresh weight. Annual. Breeding Material. Seed.

PI 535797 to 535806-continued

PI 535805 **donor id:** N120. **origin:** United States. **pedigree:** High-HCN-p B-line*2/Low-HCN-p Piper selections. Plus Sweet, brown midrib (bmr-6) line from Purdue University, low HCN-p sudangrass breeding line from Wisconsin University and cross Early Hegari/Rox. **other id:** GP-269. **group:** CSR-SORGHUM. **remarks:** Germplasm source of reduced HCN-p. Plant height at maturity 133cm. Plant color tan. Midrib green. Glumes sienna color. Caryopsis light brown. HCN-p mean 321mg per kg fresh weight. Annual. Breeding Material. Seed.

PI 535806 **donor id:** N121. **origin:** United States. **pedigree:** High-HCN-p B-line*2/Low-HCN-p Piper Selections Plus Sweet, brown midrib (bmr-6) line from Purdue University, low HCN-p sudangrass breeding line from Wisconsin University and Nebraska 7035. **other id:** GP-270. **group:** CSR-SORGHUM. **remarks:** Germplasm source of reduced HCN-p. Plant height at maturity 135cm. Plant purple. Midribs brown. Glumes black Caryopsis brown. HCN-p mean 585mg per kg fresh weight. Annual. Breeding Material. Seed.

PI 535807. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Bowers, Jr., G.R., Texas Agricultural Experiment Station, Texas A&M University, Route 7, P.O. Box 999, Beaumont, Texas, United States. **remarks:** Developed By the Texas Agricultural Experiment Station and released 1989. Received September 15, 1989.

origin: United States. **cultivar:** CROCKETT. **pedigree:** Hampton/PI171451. **other id:** CV-248. **group:** CSR-SOYBEAN. **other id:** TSB83-5387. **remarks:** Cultivar with resistance to foliar-feeding insects, frogeye leafspot and stem canker. Plants determinate, few branches. Maturity Group VIII. Flowers purple. Pubescence tawny. Pods tan. Seed dull yellow with brown hila. Tolerant to metribuzin. Seed quality good. Seedling vigor good. Susceptible to soybean cyst nematode race 3 and 4. **disease resistance:** Stem canker (*Diaporthe phaseolorum*), moderate to brown spot. Frogeye leafspot (*Cercospora sojina*). **insect resistance:** Mexican bean beetle, velvetbean caterpillar, green stinkbug. Annual. Cultivated. Seed.

PI 535808. *Humulus lupulus* L. CANNABACEAE Hop

Donated by: Haunold, A., USDA-ARS, Department of Crop Science, Oregon State University, Corvallis, Oregon, United States; and Nickerson, G.B., Department of Agricultural Chemistry, Oregon State University, Corvallis, Oregon, United States. **remarks:** Developed by USDA-ARS and the Oregon, Washington, and Idaho Experiment Stations and released March 1989. Received September 15, 1989.

PI 535808-continued

origin: United States. **cultivar:** MT. HOOD. **pedigree:** Hallertauer mittelfruher (colchicine-induced tetraploid female, USDA 21397)/USDA 19058M(male hop genotype). **other id:** CV-16. **group:** CSR-HOP. **other id:** USDA 21455. **remarks:** Aroma cultivar with high yield and similarity to imported European aroma hops. Flowering mid July. Branching good. Cones seedless. Yield 1400 to 2200 kg/ha of dried cones. Resin content 2% higher than Hallertauer mittelfruher. Humulene: caryophyllene ratio in essential oils range from 2.2 to 2.6. Cohumulone fraction of alpha acids range from 22 to 27%. No farnesene. **disease resistance:** Apparently to Verticillium wilt (V.spp). Moderate to Downy mildew (Pseudoperonospora humuli). Perennial. Cultivar. Plant.

PI 535809. Trifolium hybrid FABACEAE Clover

Donated by: Williams, E.G.; Taylor, N.L., Department of Agronomy, Agric. Science Bldg., North, University of Kentucky, Lexington, Kentucky, United States; and van den Bosch, J;Williams, W.M, Grasslands Division, DSIR, Palmerston North, New Zealand. **remarks:** Developed by the Grasslands Division, DSIR, New Zealand, and the Kentucky Agricultural Experiment Station and released in 1989. Received September 15, 1989.

donor id: HYBRID 435. **origin:** United States. **pedigree:** Trifolium ambiguum/T. repens. **other id:** GP-82. **group:** CSR-OTHER LEGUMES. **remarks:** Germplasm tetraploid (2n=4x=32) source for introgression of genes from one parent to another to develop hybrid populations. Morphologically intermediate between two parent parents, less vigorous, no nodules from field strains of Rhizobium, not rhizomatous or stoloniferous. Not usable as a cultivar. Perennial. Breeding Material. Plant.

PI 535810. Vigna unguiculata (L.) Walp. FABACEAE Southern pea

Donated by: Fery, R.L; Dukes, P.D., U.S. Vegetable Lab., USDA-ARS, 2875 Savannah Highway, Charleston, South Carolina, United States. **remarks:** Developed by USDA-ARS and released in 1989. Received September 15, 1989.

PI 535810-continued

donor id: US-432. **origin:** United States. **pedigree:** Selection from Elite. **other id:** GP-83. **group:** CSR-OTHER LEGUMES. **remarks:** Germplasm source for high plant population (narrow row) culture programs. Yield potential greater, more concentrated and earlier than Elite. Plant habit upright and compact. Pods large, straight, yellow at green-shell maturity, light straw when dry. Peas medium size, kidney shaped and cream colored. Processing quality good. Susceptible to root knot nematode, Fusarium wilt and rust. Annual. Breeding Material. Seed.

PI 535811. *Kummerowia striata* (Thunb.) Schindler FABACEAE Annual
lespedeza

Donated by: Beuselinck, P.R., Plant Genetic Unit, USDA-ARS, Columbia, Missouri, United States. **remarks:** Developed by the Missouri Agricultural Experiment Station, the Arkansas Agricultural Experiment Station, and the USDA-ARS and released March, 1989. Received September 15, 1989.

origin: United States. **cultivar:** MARION. **pedigree:** F.C. 31852 Selection. **other id:** CV-14. **group:** CSR-LESPEDEZA. **other id:** ARK-S-100. **other id:** PVP 9000093. **source:** Pending. **group:** PVPO. **remarks:** Cultivar with early maturity, folier disease resistance and cold tolerance as far north as the Missouri-Iowa border. Plants procumbent. Flowers deep purple. Yield 2.12 metric tons per hectare in Arkansas. Seed shattering potential high. **disease resistance:** Bacterial wilt (*Xanthomonas lespedezae*). Tar spot (*Phyllachora lespedezae*). Southern blight (*Sclerotium rolfsii*). **received as:** *Lespedeza striata*. Annual. Cultivar. Seed.

PI 535812 to 535815. *Astragalus cicer* L. FABACEAE Milkvetch

Donated by: Townsend, C.E., Crops Research Lab., USDA-ARS, 1701 Center Ave., Fort Collins, Colorado, United States. **remarks:** Developed by USDA-ARS and the Colorado Experiment Station and released in 1989. Received September 15, 1989.

PI 535812 **donor id:** C-14. **origin:** United States. **pedigree:** 15 Polycross progenies from Marion using a modified form of recurrent selection. **other id:** GP-84. **group:** CSR-OTHER LEGUMES. **remarks:** Germplasm with improved seed germination and seedling elongation in laboratory. Seedling emergence in field range from 110 to 141% of that of Monarch in two year test. Seed weight mean 4.16 g per 1000 seeds, compared to 4.14 G for Monarch. Annual. Breeding Material. Seed.

PI 535812 to 535815-continued

PI 535813 **donor id:** C-15. **origin:** United States. **pedigree:** 25 Polycross progenies from Marion using a modified form of recurrent selection. **other id:** GP-85. **group:** CSR-OTHER LEGUMES. **remarks:** Germplasm with improved seed germination and seedling elongation in laboratory. Seedling emergence in field range from 102 to 141% of that of Monarch in two year test. Seed weight mean 4.13 g per 1000 seeds, compared to 4.14 g for Monarch. Annual. Breeding Material. Seed.

PI 535814 **donor id:** C-16. **origin:** United States. **pedigree:** 13 Polycross progenies from Marion using a modified form of recurrent selection. **other id:** GP-86. **group:** CSR-OTHER LEGUMES. **remarks:** Germplasm with improved seed germination and seedling elongation in laboratory. Seedling emergence in field range from 141 to 172% of that of Monarch in two year test. Seed weight mean 4.08 g per 1000 seeds, compared to 4.14 g for Monarch. Annual. Breeding Material. Seed.

PI 535815 **donor id:** C-17. **origin:** United States. **pedigree:** 19 Polycross progenies from Marion using a modified form of recurrent selection. **other id:** GP-87. **group:** CSR-OTHER LEGUMES. **remarks:** Germplasm with improved seed germination and seedling elongation in laboratory. Seedling emergence in field range from 137 to 174% of that of Monarch in two year test. Seed weight mean 4.08 g per 1000 seeds, compared to 4.14 g for Monarch. Annual. Breeding Material. Seed.

PI 535816 to 535817. *Arachis hypogaea* subsp. *fastigiata* Waldron
FABACEAE Peanut

Donated by: Smith, O.D., Department of Soil and Crop Sciences, Texas A&M University, College Station, Texas, United States.
remarks: Developed by The Texas Agricultural Experiment Station, USDA-ARS and Oklahoma Agricultural Experiment Station and released 1989. Received September 15, 1989.

PI 535816 **donor id:** TxAG-4. **origin:** United States. **pedigree:** Toalson/UF 73-4022, F4 derived line. **other id:** GP-48. **group:** CSR-PEANUTS. **remarks:** Germplasm with resistance to pythium pod rot and sclerotinia blight. Plants spanish type. Pods mostly 2 and some 3 seeded, large and medium size. Shelling 2-3% lower than Starr. Sound moisture kernels average 49.5 gm per 100 seed in 1987 test. **disease resistance:** Pythium pod rot (*Pythium myriotylum*). Sclerotinia blight (*Sclerotinia minor*). Annual. Breeding Material. Seed.

PI 535816 to 535817-continued

PI 535817 **donor id:** TxAG-5. **origin:** United States. **pedigree:** Toalson/UF 73-4022, F4 derived line. **other id:** GP-49. **group:** CSR-PEANUTS. **remarks:** Germplasm with resistance to pythium pod rot and sclerotinia blight. Plants spanish type. Pods mostly 2, and some 3 seeded, large and medium size. Shelling 2-3% lower than Starr. Sound moisture kernels average 49.5 gm per 100 seed in 1987 test. **disease resistance:** Pythium pod rot (*Pythium myriotylum*). Sclerotinia blight (*Sclerotinia minor*). Annual. Breeding Material. Seed.

PI 535818. *Beta vulgaris* L. CHENOPODIACEAE Sugarbeet

Donated by: Campbell, L.G., Northern Crop Science Lab., USDA-ARS, Fargo, North Dakota, United States. Received September 15, 1989.

donor id: F1010. **origin:** United States. **pedigree:** 5 selections cycles, interpollinated using PI 169025, PI 179174, PI 220506, PI 220645, and PI 274393. **other id:** GP-131. **group:** CSR-SUGARBEET. **remarks:** Beta germplasm source of diverse genetic populations and parental lines with improved agronomic performance. Root yield average and clear juice purity equal to Ultramono and ACH-164. Heterogeneous for hypocotyl color. Seed multigerm. Root skin and flesh white. Annual. Breeding Material. Seed.

PI 535819. *Poa pratensis* L. POACEAE Bluegrass

Donated by: Ensign, R.D., Department of Plant, Soil and, Entomological Sciences, University of Idaho, Moscow, Idaho, United States. **remarks:** Developed by the University of Idaho and released December, 1988. Received September 15, 1989.

donor id: ID-61. **origin:** United States. **cultivar:** GINGER. **pedigree:** Germplasm from the approximate 45 degree latitude in western Europe. **other id:** CV-38. **group:** CSR-BLUEGRASS. **remarks:** Perennial forage-type cultivar with moderate resistance to foliar disease. Earlier spring start and higher forage production than Park, Troy, Argyle and Manchar. Tiller regrowth slight more rapid under forage conditions. Plant height at maturity 87cm. Panicle erect and pyramidal becoming golden during seed maturity. Maturity mid July. 000 seed. Seed yield 424kg per hectare. Seed shattering low. **disease resistance:** Moderate to Powdery mildew, leaf and stem rust. Leaf spot (*Drechslera poae*). Snowmold mix (*Typhula incarnata*, *Gerlachia nivalis*). Perennial. Cultivar. Seed.

PI 535820. *Poa pratensis* L. POACEAE Bluegrass

Donated by: Ensign, R.D., Department of Plant, Soil and, Entomological Sciences, University of Idaho, Moscow, Idaho, United States. **remarks:** Developed by the University of Idaho and released December, 1988. Received September 15, 1989.

donor id: ID-36. **origin:** United States. **cultivar:** RONDE. **pedigree:** F5 selection from south central European maternal line grown in Palouse-lataches silt loam nonirrigated soils. **other id:** CV-39. **group:** CSR-BLUEGRASS. **remarks:** Perennial low maintenance cultivar for use in seed blends in cold season grass zones. Turf quality and genetic color acceptable. Plants rhizomatous. Spring growth early. Plant height at maturity 78cm. Panicle intermediate long open pyramidal. Susceptible to powdery mildew (*Erysiphe graminis*) and *Helminthosporium* leaf spot (*Drechslera poae*). **disease resistance:** Moderate to Stem rust (*Puccinia graminis*). Leaf rust (*Puccinia recondita*). Perennial. Cultivar. Seed.

PI 535821. *Secale cereale* L. POACEAE Rye

Donated by: National Small Grains Collection, Small Grains Germplasm Research Facility, P.O. Box 307, Aberdeen, Idaho, United States. Received August 21, 1989.

origin: Germany, Federal Rep of. **cultivar:** FOIVD. **other id:** Cise 68. Cultivar. Seed.

PI 535822 to 535846. *Beta vulgaris* L. subsp. *vulgaris* CHENOPODIACEAE Sugarbeet

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin, Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

PI 535822 **donor id:** 188201. **origin:** Poland. **cultivar:** SENIOR. **received as:** *B. vulgaris* var. *crassa*. Cultivar. Seed.

PI 535823 **donor id:** 188202. **origin:** Poland. **cultivar:** ALBUS. **received as:** *B. vulgaris* var. *crassa*. Cultivar. Seed.

PI 535824 **donor id:** 188203. **origin:** Poland. **cultivar:** GOLIAT. **received as:** *B. vulgaris* var. *crassa*. Cultivar. Seed.

PI 535825 **donor id:** 188205. **origin:** Poland. **cultivar:** CYKLOP. **received as:** *B. vulgaris* var. *crassa*. Cultivar. Seed.

PI 535826 **donor id:** 188206. **origin:** Poland. **cultivar:** GIGANT POLY. **received as:** *B. vulgaris* var. *crassa*. Cultivar. Seed.

PI 535822 to 535846-continued

- PI 535827 donor id: 188210. origin: Poland. cultivar: REKORD POLY. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535828 donor id: 188214. origin: Poland. cultivar: ALMAMONO. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535829 donor id: 188215. origin: Poland. cultivar: TEDAMONO. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535830 donor id: 188216. origin: Poland. cultivar: POLY PAST. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535831 donor id: 188218. origin: Poland. cultivar: TYTAN POLY. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535832 donor id: 188219. origin: Poland. cultivar: GOLIAT POLY. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535833 donor id: 188220. origin: Poland. cultivar: SATURN. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535834 donor id: 188234. origin: Poland. cultivar: UNIA. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535835 donor id: 188238. origin: Poland. cultivar: KOWRA. received as: *B. vulgaris* var. *crassa*. Cultivar. Seed.
- PI 535836 donor id: 187501. origin: Poland. cultivar: AJ-POLYCAMA. other id: 007501. source: Catalog no. for Instytut Hodowli i Aklimatyzacji. received as: *B. vulgaris* subsp. *vulgaris* var. *altissima*. Cultivar. Seed.
- PI 535837 donor id: 187502. origin: Poland. cultivar: AJ-POLY 1. other id: 007502. source: Catalog no. for Instytut Hodowli i Aklimatyzacji. received as: *B. vulgaris* subsp. *vulgaris* var. *altissima*. Cultivar. Seed.
- PI 535838 donor id: 187503. origin: Poland. cultivar: AJ-3. other id: 007503. source: Catalog no. for Instytut Hodowli i Aklimatyzacji. received as: *B. vulgaris* subsp. *vulgaris* var. *altissima*. Cultivar. Seed.
- PI 535839 donor id: 187504. origin: Poland. cultivar: AJ-4. other id: 007504. source: Catalog no. for Instytut Hodowli i Aklimatyzacji. received as: *B. vulgaris* subsp. *vulgaris* var. *altissima*. Cultivar. Seed.

PI 535822 to 535846-continued

- PI 535840 donor id: 187505. origin: Poland. cultivar: AJ-1.
other id: 007505. source: Catalog no. for Instytut
Hodowli i Aklimatyzacji. received as: B. vulgaris subsp.
vulgaris var. altissima. Cultivar. Seed.
- PI 535841 donor id: 187533. origin: Poland. cultivar: PN MONO 3.
remarks: Donor may have received from German Democratic
Republic. received as: B. vulgaris subsp. vulgaris var.
altissima. Cultivar. Seed.
- PI 535842 donor id: 187550. origin: Poland. cultivar: JANAHILL.
remarks: Donor may have received from Sweden. received
as: B. vulgaris subsp. vulgaris var. altissima.
Cultivar. Seed.
- PI 535843 donor id: 187553. origin: Poland. cultivar: PN MONO 1.
remarks: Donor may have received from German Democratic
Republic. received as: B. vulgaris subsp. vulgaris var.
altissima. Cultivar. Seed.
- PI 535844 donor id: 187583. origin: Poland. cultivar: PN MONO 4.
remarks: Donor may have received from German Democratic
Republic. received as: B. vulgaris subsp. vulgaris var.
altissima. Cultivar. Seed.
- PI 535845 donor id: 187602. origin: Poland. cultivar: ANNOMONO.
received as: B. vulgaris subsp. vulgaris var. altissima.
Cultivar. Seed.
- PI 535846 origin: Poland. cultivar: CZERWONA KULA. received as:
B. vulgaris var. conditiva. Cultivar. Seed.

PI 535847 to 535878. Brassica napus L. var. napus BRASSICACEAE

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin,
Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

- PI 535847 origin: Poland. cultivar: CZYZOWSKI. received as: B.
napus var. napus f. annua. Annual. Cultivar. Seed.
- PI 535848 origin: Poland. cultivar: MLOCHOWSKI. received as: B.
napus var. napus f. annua. Annual. Cultivar. Seed.
- PI 535849 origin: Poland. cultivar: SKRZESZOWICKI. remarks:
Traditional form. received as: B. napus var. napus f.
biennis. Winter Annual. Cultivar. Seed.
- PI 535850 origin: France. cultivar: VALDOR. remarks: Traditional
form. received as: B. napus var. napus f. biennis.
Winter Annual. Cultivar. Seed.

PI 535847 to 535878-continued

- PI 535851 origin: Poland. cultivar: BERYL. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535852 origin: Germany, Federal Rep of. cultivar: DORAL. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535853 origin: Germany, Federal Rep of. cultivar: GUNDULA. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535854 origin: Sweden. cultivar: HERKULES. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535855 origin: Poland. cultivar: JANPOL. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535856 origin: Germany, Federal Rep of. cultivar: KORINA. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535857 origin: Germany, Federal Rep of. cultivar: LESTER. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535858 origin: Germany, Federal Rep of. cultivar: LIRABOU. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535859 origin: Germany, Federal Rep of. cultivar: LIRAKOTTA. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535860 origin: Germany, Federal Rep of. cultivar: LIRAMA. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535861 origin: German Democratic Repub. cultivar: MARINUS. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535862 origin: Germany, Federal Rep of. cultivar: MIRANDER. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535863 origin: France. cultivar: PRIMOR. remarks: Zero erucic acid form. received as: B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.

PI 535847 to 535878-continued

- PI 535864 origin: Germany, Federal Rep of. cultivar: QUINTA.
remarks: Zero erucic acid form. received as: B. napus
var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535865 origin: Germany, Federal Rep of. cultivar: RIDANA.
remarks: Zero erucic acid form. received as: B. napus
var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535866 origin: Czechoslovakia. cultivar: SILESIA. remarks:
Zero erucic acid form. received as: B. napus var. napus
f. biennis. Winter Annual. Cultivar. Seed.
- PI 535867 origin: Czechoslovakia. cultivar: SL-29. remarks: Zero
erucic acid form. received as: B. napus var. napus f.
biennis. Winter Annual. Cultivar. Seed.
- PI 535868 origin: Sweden. cultivar: STATUS. remarks: Zero erucic
acid form. received as: B. napus var. napus f. biennis.
Winter Annual. Cultivar. Seed.
- PI 535869 origin: Sweden. cultivar: SVALOEFS KARAB. remarks: Zero
erucic acid form. received as: B. napus var. napus f.
biennis. Winter Annual. Cultivar. Seed.
- PI 535870 origin: Germany, Federal Rep of. cultivar: TAMARA.
remarks: Zero erucic acid form. received as: B. napus
var. napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535871 origin: Poland. cultivar: WIPOL. remarks: Zero erucic
acid form. received as: B. napus var. napus f. biennis.
Winter Annual. Cultivar. Seed.
- PI 535872 origin: Poland. cultivar: DARMOR. remarks: Double zero
form (possible low glucosinolate and low erucic acid
content). received as: B. napus var. napus f. biennis.
Winter Annual. Cultivar. Seed.
- PI 535873 origin: Poland. cultivar: JANTAR. remarks: Double zero
form (possible low glucosinolate and low erucic acid
content). received as: B. napus var. napus f. biennis.
Winter Annual. Cultivar. Seed.
- PI 535874 origin: Germany, Federal Rep of. cultivar: LICANTARA.
remarks: Double zero form (possible low glucosinolate and
low erucic acid content). received as: B. napus var.
napus f. biennis. Winter Annual. Cultivar. Seed.
- PI 535875 origin: Germany, Federal Rep of. cultivar: LIGLANDOR.
other id: WRG 15. remarks: Double zero form (possible
low glucosinolate and low erucic acid content). received
as: B. napus var. napus f. biennis. Winter Annual.
Cultivar. Seed.

PI 535847 to 535878-continued

PI 535876 **origin:** Germany, Federal Rep of. **cultivar:** LIROPA.
remarks: Double zero form (possible low glucosinolate and low erucic acid content). **received as:** B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.

PI 535877 **origin:** Germany, Federal Rep of. **cultivar:** RUBIN.
remarks: Double zero form (possible low glucosinolate and low erucic acid content). **received as:** B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.

PI 535878 **origin:** Poland. **cultivar:** START. **remarks:** Double zero form (possible low glucosinolate and low erucic acid content). **received as:** B. napus var. napus f. biennis. Winter Annual. Cultivar. Seed.

PI 535879. *Calendula officinalis* L. ASTERACEAE Pot marigold

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin, Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

origin: Poland. **cultivar:** PROMYK. **remarks:** Packet comment: SHR PODOLANY. Cultivar. Seed.

PI 535880 to 535881. *Cucumis sativus* L. CUCURBITACEAE Cucumber

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin, Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

PI 535880 **origin:** Poland. **cultivar:** MIKOR. **other id:** 172401.
source: Catalog no. for Instytut Hodowli i Aklimatyzacji. Cultivar. Seed.

PI 535881 **origin:** Poland. **cultivar:** SKIERNIEWICKI. Cultivar. Seed.

PI 535882 to 535887. *Daucus carota* L. APIACEAE Carrot

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin, Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

PI 535882 **origin:** Poland. **cultivar:** JAWA. Cultivar. Seed.

PI 535883 **origin:** Poland. **cultivar:** KORAL. Cultivar. Seed.

PI 535884 **origin:** Poland. **cultivar:** LENKA. **other id:** 176301.
source: Catalog no. for Instytut Hodowli i Aklimatyzacji. Cultivar. Seed.

PI 535882 to 535887-continued

- PI 535885 **origin:** Poland. **cultivar:** PERFEKcja. **other id:** 176307.
source: Catalog no. for Instytut Hodowli i Aklimatyzacji.
Cultivar. Seed.
- PI 535886 **origin:** Poland. **cultivar:** PIERWSZY ZBIOR. **other id:**
176302. **source:** Catalog no. for Instytut Hodowli i
Aklimatyzacji. Cultivar. Seed.
- PI 535887 **origin:** Poland. **cultivar:** SELECTA. **other id:** 176304.
source: Catalog no. for Instytut Hodowli i Aklimatyzacji.
Cultivar. Seed.

PI 535888 to 535894. *Helianthus annuus* L. ASTERACEAE Sunflower

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin,
Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

- PI 535888 **origin:** Poland. **cultivar:** BOROWSKI PRAZKOWANY.
Cultivar. Seed.
- PI 535889 **origin:** Poland. **cultivar:** BOROWSKI ULEPSZONY. Cultivar.
Seed.
- PI 535890 **origin:** Poland. **cultivar:** KRZYNOWLOSKI MIEJSCOWY.
Cultivar. Seed.
- PI 535891 **origin:** Poland. **cultivar:** LECH. Cultivar. Seed.
- PI 535892 **origin:** Poland. **cultivar:** OLH 1-82. Cultivar. Seed.
- PI 535893 **origin:** Poland. **cultivar:** OLH 2-82. Cultivar. Seed.
- PI 535894 **origin:** Poland. **cultivar:** WIELKOPOLSKI. Cultivar.
Seed.

PI 535895 to 535896. *Petroselinum crispum* (Miller) Nym. ex A. W. Hill
APIACEAE Parsley

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin,
Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

- PI 535895 **origin:** Poland. **cultivar:** BERLINSKA. Cultivar. Seed.
- PI 535896 **origin:** Poland. **cultivar:** LENKA. **other id:** 176701.
source: Catalog no. for Instytut Hodowli i Aklimatyzacji.
Cultivar. Seed.

PI 535897. *Spinacia oleracea* L. CHENOPODIACEAE Spinach

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin, Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

origin: Poland. **cultivar:** OLBRZYM ZIMOWY. **other id:** 178401. **source:** Catalog no. for Instytut Hodowli i Aklimatyzacji. **Cultivar.** Seed.

PI 535898 to 535931. *Zea mays* L. subsp. *mays* POACEAE Field corn

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin, Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

PI 535898 **origin:** Netherlands. **cultivar:** Z 34. **remarks:** Flint type. **received as:** *Z. mays* subsp. *indurata* var. *alba*. **Cultivar.** Seed.

PI 535899 **origin:** Poland. **cultivar:** MUSZYNSKI. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535900 **origin:** Poland. **cultivar:** S 2. **remarks:** Inbred line. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535901 **origin:** Poland. **cultivar:** S 3. **remarks:** Inbred line. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535902 **origin:** Poland. **cultivar:** S 25. **remarks:** Inbred line. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535903 **origin:** Poland. **cultivar:** S 26. **remarks:** Inbred line. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535904 **origin:** Poland. **cultivar:** S 42. **remarks:** Inbred line. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535905 **origin:** Poland. **cultivar:** S 45. **remarks:** Inbred line. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535906 **origin:** Poland. **cultivar:** S 56. **remarks:** Inbred line. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535907 **origin:** Poland. **other id:** IHAR Syntetyk B. **received as:** *Z. mays* var. *vulgata*. **Breeding Material.** Seed.

PI 535908 **origin:** Poland. **other id:** IHAR Syntetyk C. **received as:** *Z. mays* var. *vulgata*. **Breeding Material.** Seed.

PI 535909 **origin:** Poland. **other id:** IHAR Syntetyk F. **received as:** *Z. mays* var. *vulgata*. **Breeding Material.** Seed.

PI 535910 **origin:** Poland. **cultivar:** ZLOTA GORECKA. **received as:** *Z. mays* var. *vulgata*. **Cultivar.** Seed.

PI 535898 to 535931-continued

- PI 535911 origin: Poland. cultivar: RZESZOWSKA SILOSOWA. remarks: Seeds red and yellow. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535912 origin: Poland. cultivar: S 8. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535913 origin: Poland. cultivar: S 17. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535914 origin: Poland. cultivar: S 22. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Breeding Material. Seed.
- PI 535915 origin: Poland. cultivar: S 23. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Breeding Material. Seed.
- PI 535916 origin: Poland. cultivar: S 37. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535917 origin: Poland. cultivar: S 51. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535918 origin: Poland. cultivar: S 54. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535919 origin: Poland. cultivar: S 59A. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535920 origin: Poland. cultivar: S 63. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535921 origin: Poland. cultivar: S 65. remarks: Seeds yellow dent with red cobs. Inbred lines. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535922 origin: Poland. cultivar: S 86. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535923 origin: Poland. cultivar: S 90. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.

PI 535898 to 535931-continued

- PI 535924 origin: Poland. cultivar: S 97. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535925 origin: Poland. cultivar: S 99. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535926 origin: Poland. cultivar: S 117. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535927 origin: Poland. cultivar: S 125. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535928 origin: Poland. other id: IHAR Syntetyk A. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Breeding Material. Seed.
- PI 535929 origin: Poland. cultivar: WAWRZENCZYCKA. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535930 origin: Poland. cultivar: WIGOR. remarks: Seeds yellow dent with red cobs. Inbred line. received as: Z. mays subsp. flavorubra. Cultivar. Seed.
- PI 535931 origin: Poland. cultivar: PREZBEDOWSKA BIALA. remarks: White dent type. received as: Z. mays var. leucodon. Cultivar. Seed.

PI 535932. *Zea mays* L. subsp. *mays* POACEAE Sweet corn

Donated by: Goral, S., Instytut Hodowli i Aklimatyzacji Roslin, Radzikow, 05-870 Blonie, Poland. Received August 18, 1989.

origin: Poland. cultivar: SU SMOLICE. received as: Z. mays var. *saccharata*. Cultivar. Seed.

PI 535933. *Ipomoea abrupta* R. Br. CONVOLVULACEAE

Donated by: Johnson, B., QDPI, Meiers Road, Indooroopilly 4068, Queensland, Australia. Received July 31, 1989.

origin: Australia. locality: Murganella. Wild. Seed.

PI 535934. *Ipomoea littoralis* Blume CONVOLVULACEAE

Donated by: Johnson, B., QDPI, Meiers Road, Indooroopilly 4068, Queensland, Australia. Received July 31, 1989.

* *Ipomoea gracilis* R. Br. CONVOLVULACEAE
origin: Australia. **locality:** 17.2km N of North Kennedy River, North Queensland. Wild. Seed.

PI 535935. *Ipomoea graminea* R. Br. CONVOLVULACEAE

Donated by: Johnson, B., QDPI, Meiers Road, Indooroopilly 4068, Queensland, Australia. Received July 31, 1989.

origin: Australia. **locality:** 5.3km N of Hann River, North Queensland. Wild. Seed.

PI 535936. *Ipomoea polpha* R. W. Johnson CONVOLVULACEAE

Donated by: Johnson, B., QDPI, Meiers Road, Indooroopilly 4068, Queensland, Australia. Received July 31, 1989.

origin: Australia. **locality:** Boondarra, South Queensland. Wild. Seed.

PI 535937. *Ipomoea* sp. CONVOLVULACEAE

Donated by: Johnson, B., QDPI, Meiers Road, Indooroopilly 4068, Queensland, Australia. Received July 31, 1989.

origin: Australia. **locality:** Arnhem Land. Wild. Seed.

PI 535938 to 535941. *Paspalum scrobiculatum* L. POACEAE Kodo

Donated by: Watt, V.; Bolton, M., IBPGR, Rome, Italy; and Diarra, A., Rice Research Station, B.P. 205, Mopti, Mali; and Ghesquiere, A., ORSTOM, Adiopodoume, BVP 51, Adidjan, Ivory Coast. **remarks:** Received through IBPGR, Rome, Italy. Received October 07, 1988.

PI 535938 **donor id:** C 061. **origin:** Mali. **local name:** Htthoudo. **collected:** December 26, 1986. **locality:** On dyke road S of Taikire village, Mopti. **latitude:** 14 deg. 28 min. N. **longitude:** 4 deg. 09 min. W. **elevation:** 265m. **remarks:** Plants abundant. Wild. Seed.

PI 535938 to 535941-continued

- PI 535939 **donor id:** C 069. **origin:** Mali. **local name:** Kordo-riro. **locality:** 4km N of Mopti Barkodaqa, right-hand side of road after bridge over canal gates, at corner of canal, Namara village, Mopti. **latitude:** 14 deg. 34 min. N. **longitude:** 4 deg. 11 min. W. **elevation:** 267m. **remarks:** Plants abundant. Used for fodder. Wild. Seed.
- PI 535940 **donor id:** C 092. **origin:** Mali. **local name:** Titi. **collected:** January 02, 1987. **locality:** On river bank opposite Garoeye Garoudji village, Mopti, Dialoube Arrondissement. **latitude:** 15 deg. 8 min. N. **longitude:** 4 deg. 15 min. W. **elevation:** 264m. **remarks:** Plants abundant. Used for forage. Wild. Seed.
- PI 535941 **donor id:** C 099. **origin:** Mali. **local name:** Condo-siro. **collected:** January 04, 1987. **locality:** 500m SW of Payona village, Mopti, Dialoube Arrondissement. N#. **latitude:** 14 deg. 50 min. N. **longitude:** 4 deg. 21 min. W. **elevation:** 268m. **remarks:** Plants abundant. Used for forage. Wild. Seed.

PI 535942. *Pennisetum violaceum* (Lam.) Rich. POACEAE

Donated by: Watt, V.; Bolton, M., IBPGR, Rome, Italy; and Diarra, A., Rice Research Station, B.P. 205, Mopti, Mali; and Ghesquiere, A., ORSTOM, Adiopodoume, BVP 51, Adidjan, Ivory Coast. **remarks:** Received through IBPGR, Rome, Italy. Received October 07, 1988.

donor id: C 100. **origin:** Mali. **collected:** January 5, 1987. **locality:** 3.5km SSE of Kelloye village, Mopti, Ouro Modi Arrondissement. **latitude:** 14 deg. 19 min. N. **longitude:** 4 deg. 28 min. W. **elevation:** 269m. **remarks:** Plants abundant. Wild. Seed.

PI 535943 to 535944. *Abelmoschus esculentus* (L.) Moench MALVACEAE
Okra

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535943 **donor id:** C008. **origin:** Cameroon. **collected:** October 14, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C008. **locality:** Clay loam, dark gray soil, flatland, E side of bridge on El Beid River, N side of highway, Tilde Goulfey village, Kousseri, Extreme-Nord Province. **latitude:** 12 deg. 07 min. N. **longitude:** 014 deg. 44 min. E. **elevation:** 285m. **remarks:** Population greater than 1000 spontaneous plants. Used as a vegetable. Landrace. Seed.

PI 535943 to 535944-continued

PI 535944 donor id: C063. origin: Cameroon. collected: October 23, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C063. locality: Clay and fine sand, dark grey/black soil, on the NW side of Parc National de Waza on dirt track on park boundary-about 1.5km along muddy trail from main highway going N at village of Ndiguina, Waza, Maroua, Extreme-Nord Province. latitude: 11 deg. 30 min. N. longitude: 014 deg. 41 min. E. elevation: 300m. remarks: Population less than 100 stalks. Used as a vegetable. Soil pH-6.5. Wild. Seed.

PI 535945 to 535946. *Abelmoschus* sp. MALVACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535945 donor id: C032. origin: Cameroon. collected: October 19, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C032. locality: Clay, dark grey soil, 3km E of El Beid River, where main highway crosses, Farfara, Kousseri, Extreme-Nord Province. latitude: 12 deg. 07 min. N. longitude: 14 deg. 45 min. E. elevation: 291m. remarks: Population greater than 10,000 plants. Soil pH-6.5. Landrace. Seed.

PI 535946 donor id: C033. origin: Cameroon. collected: October 19, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C033. locality: Clay, dark grey soil, 3km E of El Beid River, where main highway crosses, Farfara, Kousseri, Extreme-Nord Province. latitude: 12 deg. 07 min. N. longitude: 14 deg. 45 min. E. elevation: 291m. remarks: Population greater than 10,000 plants. Soil pH-6.5. Landrace. Seed.

PI 535947 to 535948. *Citrullus lanatus* (Thunb.) Matsum. & Nakai
CUCURBITACEAE Watermelon

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535947 donor id: C027. origin: Cameroon. local name: Faah-leh (Arabic language). collected: October 18, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C027. locality: Clay, dark gray soil, 64km from Kousseri on road to Fotokol at the Nigeria/Cameroon frontier, Djarmena djibrun village (near marked town of Djamous), Kousseri, Extreme-Nord Province. latitude: 12 deg. 21 min. N. longitude: 014 deg. 15 min. E. elevation: 289m. remarks: Used as a major fruit. Soil pH-6.0-7.0. Landrace. Seed.

PI 535947 to 535948-continued

PI 535948 donor id: C038. origin: Cameroon. collected: October 19, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C038. locality: Clay, dark grey soil, 3km E of El Beid River, where main highway crosses it, Farfara village, Kousseri, Extreme-Nord Province. latitude: 12 deg. 07 min. N. longitude: 014 deg. 45 min. E. elevation: 291m. remarks: Population of 5 well-tended plants. Soil pH-6.5. Landrace. Seed.

PI 535949 to 535951. *Digitaria argyrotricha* (Andersson) Chiov. POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy.
Received December 15, 1988.

PI 535949 donor id: C107. origin: Cameroon. collected: October 27, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C107. locality: Clay and fine sand, light brown, gray soil, on main dirt road from Mokolo to Rhumsiki (Roumsiki), E of village of Mayo Lega, Mokolo, Maroua village, Extreme-Nord Province. latitude: 10 deg. 43 min. N. longitude: 013 deg. 43 min. E. elevation: 830m. remarks: Population greater than 500. Soil pH-6.5. Wild. Seed.

PI 535950 donor id: C133. origin: Cameroon. collected: October 31, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C133. locality: Sand, silt and gravel, pale brown soil, 8km from Mokolo off road to Rhumsiki, N of road along Mayo Ouanday River, directly E of military airstrip, Mayo Sanguare village, Mokolo, Maroua, Extreme-Nord Province. latitude: 10 deg. 45 min. N. longitude: 013 deg. 43 min. E. elevation: 850m. remarks: Population greater than 10,000. Soil pH-6.0. Wild. Seed.

PI 535951 donor id: C140. origin: Cameroon. collected: October 31, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C140. locality: Sand, silt and gravel, pale brown soil, 8km from Mokolo off road to Rhumsiki, N of road along the Mayo Ouanday River, directly E of military airstrip, Mayo Sanguare village, Mokolo, Maroua, Extreme-Nord Province. latitude: 10 deg. 45 min. N. longitude: 013 deg. 43 min. E. elevation: 850m. remarks: Population greater than 10,000. Soil pH-6.0. Wild. Seed.

PI 535952. *Digitaria* sp. POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy.
Received December 15, 1988.

PI 535952-continued

donor id: C045. **origin:** Cameroon. **collected:** October 21, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C045. **locality:** Clay, dark grey/black soil, flatland, Waza National Park, on main train leading from park headquarters at Waza village into park, 19.5km SE of Waza village, Maroua, Extreme-Nord Province. **latitude:** 11 deg. 14 min. N. **longitude:** 14 deg. 38 min. E. **elevation:** 300m. **Wild. Seed.**

PI 535953 to 535957. *Pennisetum glaucum* (L.) R. Br. POACEAE Pearl millet

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535953 **donor id:** C006. **origin:** Cameroon. **local name:** Nya dirie (Fulfulde language). **collected:** October 12, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C006. **locality:** Clay loam, variable soil, N of the village of Sorawell along main highway-near largest, concrete bridge, Sorawell, Guider, Nord Province. **latitude:** 09 deg. 50 min. N. **longitude:** 013 deg. 54 min. E. **elevation:** 310m. **restricted:** QUAR. **remarks:** Population less than 1,000 stalks. Used as food. Soil pH- 7.0. Landrace. Seed.

PI 535954 **donor id:** C010. **origin:** Cameroon. **local name:** D'hun (Arabic language). **collected:** October 15, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C010. **locality:** Sandy, light grey soil, in a garden area on N edge of the village of Hile Alifa, Kousseri, Extreme-Nord Province. **latitude:** 12 deg. 43 min. N. **longitude:** 014 deg. 19 min. E. **elevation:** 286m. **restricted:** QUAR. **remarks:** Population greater than 10,000 heads. Soil pH-6.5. Landrace. Seed.

PI 535955 **donor id:** C021. **origin:** Cameroon. **local name:** Dogona (Arabic language). **collected:** October 17, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C021. **locality:** Fine sand, pale grey brown soil, roughly 1 hour's boat ride N of Blangwa on Lake Chad near the Cameroon/Chad frontier, Kofia village, Blangwa, Extreme-Nord Province. **latitude:** 12 deg. 56 min. N. **longitude:** 014 deg. 30 min. E. **elevation:** 282m. **restricted:** QUAR. **remarks:** Population greater than 6,000. Used as a staple. Soil pH- 7.0. Landrace. Seed.

PI 535953 to 535957-continued

PI 535956 donor id: C022. origin: Cameroon. local name: Dogona (Arabic language). collected: October 17, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C022. locality: Fine sand, pale grey brown soil, roughly 1 hour's boat ride N of Blangwa on Lake Chad near the Cameroon/Chad frontier, Kofia village, Blangwa, Extreme-Nord Province. latitude: 12 deg. 56 min. N. longitude: 014 deg. 30 min. E. elevation: 282m. restricted: QUAR. remarks: Used as a staple. Soil pH-7.0. Landrace. Seed.

PI 535957 donor id: C116. origin: Cameroon. collected: October 30, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C116. locality: Clay, fine sand, gravel, grey soil, on road from Mokolo to Roumsiki(Rumski) after the larger town of Mogode, Gouria, N of the tourist village of Roumsiki, E of town of Mokolo, Extreme-Nord Province. latitude: 10 deg. 34 min. N. longitude: 013 deg. 35 min. E. elevation: 970-1000m. restricted: QUAR. remarks: Used as a major staple cereal. Soil pH-6.0. Landrace. Seed.

PI 535958 to 535959. Pennisetum hybrid POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535958 donor id: C011. origin: Cameroon. pedigree: Pennisetum glaucum/P. sieberianum (P. americanum subsp. stenostachyum). collected: October 15, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C011. locality: Sandy, light grey soil, in a garden area on N edge of village of Hile Alifa, Kousseri, Extreme-Nord Province. latitude: 12 deg. 43 min. N. longitude: 14 deg. 19 min. E. elevation: 286m. restricted: QUAR. remarks: Population greater than 10,000 heads. Soil pH-6.5. Landrace. Seed.

PI 535959 donor id: C066. origin: Cameroon. pedigree: Pennisetum glaucum/Pennisetum sieberianum (P. americanum subsp. stenostachyum). local name: Nya dirie (Fulfulde language). collected: October 23, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C066. locality: Sandy, gray soil, 2km from turnoff on main highway at Double Alagarno on the trail to Banki the town at the Cameroon Nigeria frontier with petroleum truck depot for Chad, Masla village, Maroua, Extreme-Nord Province. latitude: 11 deg. 12 min. N. longitude: 014 deg. 13 min. E. elevation: 310m. restricted: QUAR. remarks: Population less than 200 plants. Wild. Seed.

PI 535960. *Pennisetum macrourum* Trin. POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy.
Received December 15, 1988.

donor id: C083. **origin:** Cameroon. **local name:** Iskuzain (Matakumo language). **collected:** October 27, 1986.
collector: Ingram, Bengono, Fondoun, Moss, Jackson.
collector id: C083. **locality:** Sand and gravel, grey soil, off main dirt road going N of Mokolo, major concrete bridge over Tsanaga River, just before major intersection N toward Mozoso and E toward Meri, extending 1-2km up Vayvouyak Creek toward NW Mokolo. **latitude:** 10 deg. 48 min. N. **longitude:** 013 deg. 50 min. E. **elevation:** 770-800m. **restricted:** QUAR. **remarks:** Used as a place for cows to graze, a preferred forage. Soil pH-6.5-7.0. **received as:** *P. giganteum*. Landrace. Seed.

PI 535961 to 535974. *Pennisetum pedicellatum* Trin. POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy.
Received December 15, 1988.

PI 535961 **donor id:** C002. **origin:** Cameroon. **local name:** Mamourki (Moundan language). **collected:** October 12, 1986.
collector: Ingram, Bengono, Fondoun, Moss, Jackson.
collector id: C002. **locality:** Sandy loam, light red soil, on main road going N from Garoua to Maroua, 24km N of Garoua, Sekende village, Garoua, Nord Province. **latitude:** 09 deg. 26 min. N. **longitude:** 013 deg. 33 min. E. **elevation:** 186m. **restricted:** QUAR. **remarks:** Population greater than 1,000,000. Used as forage for domestic animals. Soil pH-6.0-6.5. Wild. Seed.

PI 535962 **donor id:** C003. **origin:** Cameroon. **local name:** Mamourki (Moundari language). **collected:** October 12, 1986.
collector: Ingram, Bengono, Fondoun, Moss, Jackson.
collector id: C003. **locality:** Sandy loam, light red soil, on main road going N from Garoua to Maroua, 24km N of Garoua, Sekende village, Garoua, Nord Province. **latitude:** 09 deg. 26 min. N. **longitude:** 013 deg. 33 min. E. **elevation:** 186m. **restricted:** QUAR. **remarks:** Population greater than 1,000,000. Used as forage for domestic animals. Soil pH-6.0-6.5. Wild. Seed.

PI 535961 to 535974-continued

- PI 535963 donor id: C005. origin: Cameroon. collected: October 12, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C005. locality: Clay loam, variable soil, N of the village of Sorawell along main highway-near largest concrete bridge, Sorawell, Guider, Nord Province. latitude: 09 deg. 50 min. N. longitude: 013 deg. 54 min. E. elevation: 310m. restricted: QUAR. remarks: Population greater than 1,000,000. Soil pH-7.0. Wild. Seed.
- PI 535964 donor id: C015. origin: Cameroon. collected: October 16, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C015. locality: Clay sand, grey soil, 1km behind village of Bidience in a coppice (Acacia spp.) woodland, Bidienne (on map it is Koundjara), Makary, Kousseri, Extreme-Nord Province. latitude: 12 deg. 45 min. N. longitude: 014 deg. 26 min. E. elevation: 283m. restricted: QUAR. remarks: Population greater than 5,000 plants. Soil pH-6.0-7.0. Wild. Seed.
- PI 535965 donor id: C058. origin: Cameroon. collected: October 22, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C058. locality: Clay with gravel, dark grey/black soil, prominent hill directly above Waza village, across highway from Waza National Park, Waza village, Maroua, Extreme-Nord Province. latitude: 11 deg. 24 min. N. longitude: 14 deg. 33 min. E. elevation: 350m. restricted: QUAR. Wild. Seed.
- PI 535966 donor id: C067. origin: Cameroon. collected: October 23, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C067. locality: Sandy, gray soil, 2km from turnoff on main highway at Double Alagarno on trail to Banki the town at Cameroon Nigeria frontier with petroleum truck depot for Chad, Masla village, Maroua, Extreme-Nord Province. latitude: 11 deg. 12 min. N. longitude: 014 deg. 13 min. E. elevation: 310m. restricted: QUAR. remarks: Population greater than 1,000,000 heads. Used as forage. Wild. Seed.
- PI 535967 donor id: C073. origin: Cameroon. local name: Mand barain (Mofou language). collected: October 25, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C073. locality: Sandy loam, red brown soil, 21.4km NW of Maroua (road to Maroua NE from Novotel Hotel, main highway, N)-at base of small mountain called Dougour near village of Tchakidjebe, Tchakidjebe, Maroua, Extreme-Nord Province. latitude: 10 deg. 43 min. N. longitude: 014 deg. 12 min. E. elevation: 800m. restricted: QUAR. remarks: Used as forage, construction. Soil pH-7.0. Wild. Seed.

PI 535961 to 535974-continued

- PI 535968 donor id: C095. origin: Cameroon. collected: October 27, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C095. locality: Course and fine sand, grey and light brown soil, adjacent to main road from Maroua to Mokolo on river just below confluence of Tsanaga River and Mayo Goudoulou, Mokong village, Maroua, Extreme-Nord Province. latitude: 10 deg. 34 min. N. longitude: 014 deg. 03 min. E. elevation: 500m. restricted: QUAR. remarks: Population greater than 10,000. Soil pH-6.5-7.0. Wild. Seed.
- PI 535969 donor id: C104. origin: Cameroon. collected: October 27, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C104. locality: Clay and fine sand, light brown, grey soil, on main dirt road from Mokolo to Rhumsiki(Roumsiki), E of Mayo Lega village, Mokolo, Maroua, Extreme-Nord Province. latitude: 10 deg. 43 min. N. longitude: 013 deg. 43 min. E. elevation: 830m. restricted: QUAR. remarks: Soil pH-6.5. Wild. Seed.
- PI 535970 donor id: C111. origin: Cameroon. local name: Koufoo (Kapsiki language). collected: October 30, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C111. locality: Clay, fine sand, gravel, grey soil, on road from Mokolo to Roumsiki(Rhumsiki) after larger town of Mogode, Gouria, N of tourist village of Roumsiki, E of town of Mokolo, Extreme- Nord Province. latitude: 10 deg. 34 min. N. longitude: 013 deg. 35 min. E. elevation: 970-1000m. restricted: QUAR. remarks: Population greater than 1,000,000. Used as thatches in house construction. Wild. Seed.
- PI 535971 donor id: C125. origin: Cameroon. collected: October 29, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C125. locality: Clay, gravel and larger stones, dark grey soil, about 1.5km NE of centre of village of Rhumsiki on main dirt road from Rhumsiki to Mokolo, Rhumsiki(Roumsiki), Mokolo, Maroua, Extreme-Nord Province. latitude: 10 deg. 45 min. N. longitude: 013 deg. 43 min. E. elevation: 1070m. restricted: QUAR. remarks: Population greater than 100. Soil pH-6.0. Weedy. Wild. Seed.

PI 535961 to 535974-continued

PI 535972 donor id: C126. origin: Cameroon. collected: October 29, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C126. locality: Clay, gravel and larger stones, dark grey soil, about 1.5km NE of centre of village of Rhumsiki on main dirt road from Rhumsiki to Mokolo, Rhumsiki(Roumsiki), Mokolo, Maroua, Extreme-Nord Province. latitude: 10 deg. 45 min. N. longitude: 013 deg. 43 min. E. elevation: 1070m. restricted: QUAR. remarks: Population greater than 100. Soil pH-6.0. Weedy. Wild. Seed.

PI 535973 donor id: C130. origin: Cameroon. collected: October 31, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C130. locality: Sand, silt and gravel, pale brown soil, 8km from Mokolo off road to Rhumsiki, N of road along te Mayo Ouanday River E of military airstrip, Mayo Sanguare, Mokolo, Maroua, Extreme- Nord Province. latitude: 10 deg. 45 min. N. longitude: 013 deg. 43 min. E. elevation: 850m. restricted: QUAR. remarks: Soil pH-6.0. Wild. Seed.

PI 535974 donor id: C139. origin: Cameroon. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C139. restricted: QUAR. Wild. Seed.

PI 535975 to 535978. Pennisetum polystachion (L.) Schultes POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535975 donor id: C001. origin: Cameroon. collected: October 11, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C001. locality: Clay loam with sand, light red soil, on main highway N to Garoua at bottom of great falaise before village of Wak-51km N of Ngaoundere, Wak, Ngaoundere, Adamaoua Province. latitude: 07 deg. 30 min. N. longitude: 013 deg. 45 min. E. elevation: 720m. restricted: QUAR. remarks: Population greater than 1,000,000. Soil pH-5.5. Wild. Seed.

PI 535976 donor id: C112. origin: Cameroon. collected: October 30, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C112. locality: Clay, fine sand, gravel, grey soil, on road from Mokolo to Roumski(Rhumsiki) after larger town of Mogode, Gouria, N of tourist village of Roumsiki, E of Mokolo, Extreme-Nord Province. latitude: 10 deg. 34 min. N. longitude: 013 deg. 35 min. E. elevation: 970-1000m. restricted: QUAR. remarks: Population greater than 100,000. Soil pH-6.0. Wild. Seed.

PI 535975 to 535978-continued

PI 535977 donor id: C131. origin: Cameroon. collected: October 31, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C131. locality: Sand, silt and gravel, pale brown soil, 8km from Mokolo off road to Rhumsiki, N of road along Mayo Ouanday River E of military airstrip, Mayo Sanguare, Mokolo, Maroua, Extreme- Nord Province. latitude: 10 deg. 45 min. N. longitude: 013 deg. 43 min. E. elevation: 850m. restricted: QUAR. remarks: Soil pH-6.0. Wild. Seed.

PI 535978 donor id: C137. origin: Cameroon. collected: October 27, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C137. locality: Course and fine sand, grey and light brown soil, flatland, adjacent to main road from Maroua to Mokolo on river just below confluence of Tsanaga River and Mayo Goudoulou, Mokong village, Maroua, Extreme-Nord Province. latitude: 10 deg. 34 min. N. longitude: 014 deg. 03 min. E. elevation: 500m. restricted: QUAR. remarks: Soil pH-6.5-7.0. Wild. Seed.

PI 535979 to 535983. Pennisetum purpureum Schumach. POACEAE Elephant grass

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535979 donor id: C004. origin: Cameroon. local name: Guenay (Moundan language). collected: October 12, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C004. locality: Clay loam, variable soil, N of village of Sorawell along main highway-near largest concrete bridge, Sorawell, Guider, Nord Province. latitude: 09 deg. 50 min. N. longitude: 013 deg. 54 min. E. elevation: 310m. restricted: QUAR. remarks: Population greater than 1,000 stalks. Used as forage for larger domestic animals. Soil pH-7.0. Wild. Seed.

PI 535980 donor id: C100. origin: Cameroon. collected: October 27, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C100. locality: Course and fine sand, grey and light brown soil, adjacent to main road from Maroua to Mokolo on river below confluence of Tsanaga River and Mayo Goudoulou, Mokong, Maroua, Extreme- Nord Province. latitude: 10 deg. 34 min. N. longitude: 014 deg. 03 min. E. elevation: 500m. restricted: QUAR. remarks: Population greater than 50. Soil pH-6.5-7.0. Wild. Seed.

PI 535979 to 535983-continued

PI 535981 donor id: C103. origin: Cameroon. collected: October 27, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C103. locality: Clay and fine sand, light brown, grey soil, on main dirt road from Mokolo to Rhumsiki (Roumski) to E of village of Mayo Lega, Mayo Lega, Mokolo, Maroua, Extreme-Nord Province. latitude: 10 deg. 43 min. N. longitude: 013 deg. 43 min. E. elevation: 830m. restricted: QUAR. remarks: Soil pH-6.5. Wild. Seed.

PI 535982 donor id: C129. origin: Cameroon. collected: October 31, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C129. locality: Sand, silt and gravel, pale brown soil, 8km from Mokolo off road to Rhumsiki, N of road along the Mayo Ouanday River, E of military airstrip, Mayo Sanguare, Mokolo, Maroua, Extreme-Nord Province. latitude: 10 deg. 45 min. N. longitude: 013 deg. 43 min. E. elevation: 850m. restricted: QUAR. remarks: Population greater than 1,000,000. Soil pH-6.0. Wild. Seed.

PI 535983 donor id: C138. origin: Cameroon. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C138. restricted: QUAR. Wild. Seed.

PI 535984 to 535985. *Pennisetum sieberianum* (Schldl.) Stapf & C. E. Hubb. POACEAE

Donated by: Ingram, G.B., Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535984 donor id: C013. origin: Cameroon. collected: October 16, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C013. locality: Sandy, grey soil, outskirts of small village of Naga, 1-2km from present shores of Lake Chad, Kousseri, Makary, Extreme-Nord Province. latitude: 12 deg. 46 min. N. longitude: 014 deg. 18 min. E. elevation: 283m. restricted: QUAR. remarks: Population greater than 50 plants. Used as food for domestic animals, material for shelter construction and fences. Soil pH-7.0. Weedy. received as: *Pennisetum americanum* subsp. *stenostachyum*. Landrace. Seed.

PI 535984 to 535985-continued

PI 535985 **donor id:** C020. **origin:** Cameroon. **collected:** October 16, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C020. **locality:** Sandy, light grey soil, 3km from Blangwa on the main (dirt) road going S, Blangwa, Kousseri, Extreme-Nord Province. **latitude:** 12 deg. 46 min. N. **longitude:** 014 deg. 32 min. E. **elevation:** 284m. **restricted:** QUAR. **remarks:** Soil pH-6.0-7.0. Weedy. **received as:** Pennisetum americanum subsp. stenostachyum. Landrace. Seed.

PI 535986 to 535987. Pennisetum sp. POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535986 **donor id:** C099. **origin:** Cameroon. **collected:** October 27, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C099. **locality:** Course and fine sand, grey and light brown soil, flatland, adjacent to main road from Maroua to Mokolo on river just below confluence of Tsanaga River and Mayo Goudoulou, Mokong village, Maroua, Extreme-Nord Province. **latitude:** 10 deg. 34 min. N. **longitude:** 014 deg. 03 min. E. **elevation:** 500m. **restricted:** QUAR. **remarks:** Soil pH-6.5-7.0. Wild. Seed.

PI 535987 **donor id:** C105. **origin:** Cameroon. **collected:** October 27, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C105. **locality:** Clay and fine sand, light brown, grey soil, on main dirt road from Mokolo to Rhumsiki(Roumsiki) E of village of Mayo Lega, Mayo Lega, Mokolo, Maroua, Extreme-Nord Province. **latitude:** 10 deg. 43 min. N. **longitude:** 013 deg. 43 min. E. **elevation:** 830m. **restricted:** QUAR. **remarks:** Soil pH-6.5. Wild. Seed.

PI 535988 to 535993. Pennisetum violaceum (Lam.) Rich. POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535988 to 535993-continued

- PI 535988 donor id: C009. origin: Cameroon. local name: Belgaga (Arabic, Lake Chad dialect). collected: October 15, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C009. locality: Sandy, light grey soil, in garden area on N edge of village of Hile Alifa, Kousseri, Extreme-Nord Province. latitude: 12 deg. 43 min. N. longitude: 014 deg. 19 min. E. elevation: 286m. restricted: QUAR. remarks: Population greater than 1,000. Used as food for domestic animals, housing and fence construction. Soil pH-6.5. Weedy. Wild. Seed.
- PI 535989 donor id: C012. origin: Cameroon. local name: Belgaga (Arabic, Lake Chad dialect). collected: October 16, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C012. locality: Sandy, gray soil, outskirts of small village of Naga 1-2km from present shores of Lake Chad, Naga, Kousseri, Makary, Extreme-Nord Province. latitude: 12 deg. 46 min. N. longitude: 014 deg. 18 min. E. elevation: 283m. restricted: QUAR. remarks: Population greater than 5,000. Used as food for domestic animals, housing and fence construction. Soil pH-7.0. Weedy. Wild. Seed.
- PI 535990 donor id: C014. origin: Cameroon. local name: Belgage (Arabic, Lake Chad dialect). collected: October 16, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C014. locality: Clay sand, grey soil, 1km behind village of Bidience in a coppice (Acacia spp.) woodland, Bidiene (on map it is Koundjara), Makary, Kousseri, Extreme-Nord Province. latitude: 12 deg. 45 min. N. longitude: 014 deg. 26 min. E. elevation: 283m. restricted: QUAR. remarks: Population greater than 100,000 plants. Used as food for domestic animals. Soil pH-6.0-7.0. Wild. Seed.
- PI 535991 donor id: C017. origin: Cameroon. local name: Belgaga (Arabic, Lake Chad dialect). collected: October 16, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C017. locality: Clay sand, grey soil, 1km behind village of Bidience in a coppice (Acacia spp.) woodland, Bidiene (on map it is Koundjara), Makary, Kousseri, Extreme-Nord Province. latitude: 12 deg. 45 min. N. longitude: 014 deg. 26 min. E. elevation: 283m. restricted: QUAR. remarks: Population greater than 100,000 plants. Used as food for domestic animals. Soil pH-6.0-7.0. received as: *P. americanum* subsp. *stenostachyum*. Wild. Seed.

PI 535988 to 535993-continued

PI 535992 donor id: C018. origin: Cameroon. local name: Belgaga (Arabic, Lake Chad dialect). collected: October 16, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C018. locality: Sandy loam, light brown soil, along shore of Chari River 1km N of town of Blangwa, on frontier with Chad, Djalai, Blangwa, Extreme-Nord Province. latitude: 12 deg. 47 min. N. longitude: 014 deg. 33 min. E. elevation: 284m. restricted: QUAR. remarks: Population greater than 1,000 plants. Used as food for domestic animals. Soil pH-6.0-7.0. Wild. Seed.

PI 535993 donor id: C019. origin: Cameroon. local name: Belgaga (Arabic, Lake Chad dialect). collected: October 16, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C019. locality: Sandy, light grey soil, 3km from Blangwa on main (dirt) road going S, Blangwa, Kousseri, Extreme-Nord Province. latitude: 12 deg. 46 min. N. longitude: 014 deg. 32 min. E. elevation: 284m. restricted: QUAR. remarks: Population greater than 10,000. Used as food for domestic animals, housing and fence construction. Soil pH-6.0-7.0. Wild. Seed.

PI 535994 to 535995. *Sorghum arundinaceum* (Desv.) Stapf POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy. Received December 15, 1988.

PI 535994 donor id: C062. origin: Cameroon. collected: October 21, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C062. locality: Clay and fine sand, dark grey/black soil, in Park National Waza, on main train leading from park headquarters, village of Waza into park-22km SE of village, Waza, Maroua, Extreme-Nord Province. latitude: 11 deg. 15 min. N. longitude: 014 deg. 40 min. E. elevation: 300m. restricted: QUAR. remarks: Population greater than 10,000 stalks. Soil pH-6.0-6.5. Wild. Seed.

PI 535995 donor id: C120. origin: Cameroon. collected: October 30, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C120. locality: Clay, fine sand, gravel, grey soil, on road from Mokolo to Roumsiki (Rhumsiki) after larger town of Mogode, Gouria, N of tourist village of Roumsiki, E of Mokolo, Extreme-Nord Province. latitude: 10 deg. 34 min. N. longitude: 013 deg. 35 min. E. elevation: 970-1000m. restricted: QUAR. remarks: Soil pH-6.0. Weedy. received as: *Sorghum aethiopicum*. Wild. Seed.

PI 535996 to 536006. *Sorghum bicolor* (L.) Moench POACEAE Broomcorn

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy.
Received December 15, 1988.

PI 535996 donor id: C034. origin: Cameroon. collected: October 19, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C034. locality: Clay, dark grey soil, 3km to E of El Beid River, where main highway crosses it, Farfara, Kousseri, Extreme-Nord Province. latitude: 12 deg. 07 min. N. longitude: 014 deg. 45 min. E. elevation: 291m. restricted: QUAR. remarks: Population greater than 10,000 plants. Soil pH-6.5. Landrace. Seed.

PI 535997 donor id: C035. origin: Cameroon. collected: October 19, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C035. locality: Clay, dark grey soil, 3km to E of El Beid River, where main highway crosses it, Farfara, Kousseri, Extreme-Nord Province. latitude: 12 deg. 07 min. N. longitude: 014 deg. 45 min. E. elevation: 291m. restricted: QUAR. remarks: Population greater than 10,000 plants. Soil pH-6.5. Landrace. Seed.

PI 535998 donor id: C036. origin: Cameroon. collected: October 19, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C036. locality: Clay, dark grey soil, 3km to E of El Beid River, where main highway crosses it, Farfara, Kousseri, Extreme-Nord Province. latitude: 12 deg. 07 min. N. longitude: 014 deg. 45 min. E. elevation: 291m. restricted: QUAR. remarks: Population greater than 10,000 plants. Soil pH-6.5. Landrace. Seed.

PI 535999 donor id: C037. origin: Cameroon. collected: October 19, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C037. locality: Clay, dark grey soil, 3km to E of El Beid River, where main highway crosses it, Farfara, Kousseri, Extreme-Nord Province. latitude: 12 deg. 07 min. N. longitude: 014 deg. 45 min. E. elevation: 291m. restricted: QUAR. remarks: Population greater than 10,000 plants. Soil pH-6.5. Landrace. Seed.

PI 536000 donor id: C039. origin: Cameroon. collected: October 19, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C039. locality: Silt mixed with gravels from road construction, grey soil, on main highway in N Cameroon, going S 64km from Kousseri, Kousseri, Extreme-Nord Province. latitude: 12 deg. 58 min. N. longitude: 014 deg. 39 min. E. elevation: 292m. restricted: QUAR. remarks: Soil pH-6.5. Weedy. Wild. Seed.

PI 535996 to 536006-continued

- PI 536001 donor id: C079. origin: Cameroon. collected: October 25, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C079. locality: Sandy loam, red brown soil, 21.4km NW of Maroua(road to Maroua, NE from Novotel Hotel, main highway, N)-at base of small mountain called Dougour near village of Tchakidjebe, Tchakidjebe, Maroua, Extreme-Nord Province. latitude: 10 deg. 43 min. N. longitude: 014 deg. 12 min. E. elevation: 800m. restricted: QUAR. remarks: Population greater than 1,000,000. Soil pH-7.0. Landrace. Seed.
- PI 536002 donor id: C080. origin: Cameroon. collected: October 25, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C080. locality: Sandy loam, red brown soil, 21.4km NW of Maroua(road to Maroua, NE from Novotel Hotel, main highway, N)-at base of small mountain called Dougour near village of Tchakidjebe, Tchakidjebe, Maroua, Extreme-Nord Province. latitude: 10 deg. 43 min. N. longitude: 014 deg. 12 min. E. elevation: 800m. restricted: QUAR. remarks: Population greater than 1,000,000. Soil pH-7.0. Landrace. Seed.
- PI 536003 donor id: C081. origin: Cameroon. collected: October 25, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C081. locality: Sandy loam, red brown soil, 21.4km NW of Maroua(road to Maroua, NE from Novotel Hotel, main highway, N)-at base of small mountain called Dougour near village of Tchakidjebe, Tchakidjebe, Maroua, Extreme-Nord Province. latitude: 10 deg. 43 min. N. longitude: 014 deg. 12 min. E. elevation: 800m. restricted: QUAR. remarks: Population greater than 1,000,000. Soil pH-7.0. Landrace. Seed.
- PI 536004 donor id: C091. origin: Cameroon. local name: Douw (Mandang language). collected: October 27, 1986. collector: Ingram, Bengono, Fondoun, Moss, Jackson. collector id: C091. locality: Sand and gravel, grey soil, off main dirt road N of Mokolo, before intersection of N to Mozogo and E to Meri, site was extended to 1-2km up Vayvouyak Creek to NW, Mokolo (not to major town of S), Mokolo, Extreme-Nord Province. latitude: 10 deg. 48 min. N. longitude: 013 deg. 50 min. E. elevation: 770-800m. restricted: QUAR. remarks: Population greater than 10,000. Used as major cereal for local diet. Soil pH-6.5-7.0. Landrace. Seed.

PI 535996 to 536006-continued

PI 536005 **donor id:** C092. **origin:** Cameroon. **local name:** Douw (Mandang language). **collected:** October 27, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C092. **locality:** Sand and gravel, grey soil, off main dirt road N of Mokolo, before intersection of N to Mozogo and E to Meri, site was extended to 1-2km up Vayvouyak Creek to NW, Mokolo (not to major town of S), Mokolo, Extreme-Nord Province. **latitude:** 10 deg. 48 min. N. **longitude:** 013 deg. 50 min. E. **elevation:** 770-800m. **restricted:** QUAR. **remarks:** Population greater than 10,000. Used as major cereal for local diet. Soil pH-6.5-7.0. Landrace. Seed.

PI 536006 **donor id:** C093. **origin:** Cameroon. **local name:** Douw (Mandang language). **collected:** October 27, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C093. **locality:** Sand and gravel, grey soil, off main dirt road N of Mokolo, before intersection of N to Mozogo and E to Meri, site was extended to 1-2km up Vayvouyak Creek to NW, Mokolo (not to major town of S), Mokolo, Extreme-Nord Province. **latitude:** 10 deg. 48 min. N. **longitude:** 013 deg. 50 min. E. **elevation:** 770-800m. **restricted:** QUAR. **remarks:** Population greater than 10,000. Used as major cereal for local diet. Soil pH-6.5-7.0. Landrace. Seed.

PI 536007 to 536008. *Sorghum purpureosericeum* (Hochst. ex A. Rich.)
Asch. & Schweinf. POACEAE

Donated by: Ingram, G.B.; Moss, H.; Jackson, A., IBPGR, Rome, Italy.
Received December 15, 1988.

PI 536007 **donor id:** C007. **origin:** Cameroon. **collected:** October 12, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C007. **locality:** Clay loam, variable soil, N of village of Sorawell along main highway-near largest concrete bridge, Sorawell, Guider, Nord Province. **latitude:** 09 deg. 50 min. N. **longitude:** 013 deg. 54 min. E. **elevation:** 310m. **restricted:** QUAR. **remarks:** Population greater than 1,000 stalks. Used in brooms for sweeping. Soil pH-7.0. Weedy. Wild. Seed.

PI 536007 to 536008-continued

PI 536008 **donor id:** C048. **origin:** Cameroon. **collected:** October 21, 1986. **collector:** Ingram, Bengono, Fondoun, Moss, Jackson. **collector id:** C048. **locality:** Clay and fine sand, dark grey/black soil, in Park National Waza, on main train leading from park headquarters at village of Waza into park-22km SE of village, Waza, Maroua, Extreme-Nord Province. **latitude:** 11 deg. 15 min. N. **longitude:** 014 deg. 40 min. E. **elevation:** 300m. **restricted:** QUAR. **remarks:** Population greater than 1,000,000 plants. Soil pH-6.0-6.5. Wild. Seed.

PI 536009. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Boerma, H R.; Wood, E.D., Department of Agronomy, University of Georgia, Athens, Georgia, United States; and Hussey, R.S, Department of Plant Pathology, University of Georgia, Athens, Georgia, United States; and Phillips, D.V., Department of Plant Pathology, Georgia Experiment Station, Griffin, Georgia, United States. **remarks:** Developed by the Georgia Agricultural Experiment Station and released in cooperation with the Texas Agricultural Experiment Station in May, 1989. Received October 12, 1989.

origin: United States. **cultivar:** COLQUITT. **pedigree:** Wright/Braxton, F5 derived using single pod bulk method. **other id:** GA80-1011. **other id:** G80-1011. **other id:** CV-249. **group:** CSR-SOYBEAN. **remarks:** Cultivar with multiple nematode and stem canker resistance and high productivity. Maturity Group VII. Growth habit determinate. Flowers purple. Pubescence tawny. Pod wall tan. Seeds yellow with shiny seed coat and black hila. Plant height and lodging resistance similar to Thomas. Average seed yield 8, 6, and 3% higher than Gordon, Braxton and Thomas respectively. Susceptible to soybean cyst nematode. **nematode resistance:** Southern, peanut, and javanese root-knot. **disease resistance:** Stem canker and powdery mildew. Bacterial pustule (*Xanthomonas campestris* pv. *glycines*). Annual. Cultivar. Seed.

PI 536010. *Agropyron cristatum* (L.) Gaertn. POACEAE Crested wheatgrass

Donated by: Knowles, R.P., Agriculture Canada Research Station, 107 Science Crescent, Saskatoon, Saskatchewan, Canada. **remarks:** Developed by the Agriculture Canada Research Station, Saskatoon, Saskatchewan and released February, 1989. Received October 12, 1989.

origin: Canada. **cultivar:** KIRK. **pedigree:** S-7317 (from Finland) outcrossed with nine local strains and 4 European introductions of tetraploid type, followed by two 2 cycles of phenotypic selection. **other id:** CV-17. **group:** CSR-WHEATGRASS. **other id:** Can. Reg. No. 2788. **remarks:** Tetraploid with good vigor and fertility, reduced seed shattering and awn development. Growth habit tall, with wide spikes. Emergence superior from deep seeding at 5cm. Hay yield in 22 western Canada tests 5676 kg/ha. Seed yield in 11 tests 593kg/ha. Suitable for early spring grazing and hay. Best adapted to moderately moist conditions in crested wheatgrass areas. Perennial. Cultivar. Seed.

PI 536011. *Panicum miliaceum* L. POACEAE Proso millet

Donated by: Nelson, L.A., Department of Agronomy, University of Nebraska-Lincoln, Lincoln, Nebraska, United States. **remarks:** Developed by the University of Nebraska Agricultural Experiment Station and released June, 1989. Received October 12, 1989.

donor id: 79012-9-B-8. **origin:** United States. **cultivar:** SUNUP. **pedigree:** Rise/Dawn. **other id:** CV-124. **group:** CSR-OTHER GRASSES. **remarks:** Cultivar with potential superior yield in western Nebraska. Seed white, intermediate in size between Dawn and Rise. Head type compactum. Good yield record in black fallow, no-till and in early and late seedings. Should be adapted to areas north of Nebraska. Annual. Cultivar. Seed.

PI 536012. *Bromus riparius* Rehmann POACEAE Meadow brome grass

Donated by: Knowles, R.P, Agriculture Canada Research Station, 107 Science Crescent, Saskatoon, Saskatchewan, Canada. **remarks:** Developed by the Agriculture Canada Research Station, Saskatoon, Saskatchewan and released in 1987. Received October 12, 1989.

donor id: S-9043. **origin:** Canada. **cultivar:** FLEET. **pedigree:** Synthetic of 67 Plants from 8 Eurasian sources. Chromosome number range from $2n=65$ to $2n=74$. **other id:** CV-17. **group:** CSR-BROMEGRASS. **other id:** Can. Reg. No. 2778. **remarks:** Cultivar with good seed production and reduced awn size and shattering for use in pastures. Root habit restricted and creeping. Basal leaves abundant. Pubescence on leaves, stems and seed in varying degrees. Regrowth following clipping rapid. Fall frost resistance similar to Regar and superior to that of smooth brome grass. Adapted to cool moist areas of N & W Canadian prairies. In vitro digestibility 642g per kg. Perennial. Cultivar. Seed.

PI 536013. *Bromus riparius* Rehmann POACEAE Meadow brome grass

Donated by: Knowles, R.P, Agriculture Canada Research Station, 107 Science Crescent, Saskatoon, Saskatchewan, Canada. **remarks:** Developed by the Agriculture Canada Research Station, Saskatoon, Saskatchewan and released in 1987. Received October 12, 1989.

donor id: S-7417. **origin:** Canada. **cultivar:** PADDOCK. **pedigree:** Developed from VIR K27534 (Krasnodar, USSR) and 7 other Eurasian strains using open pollination. **other id:** CV-18. **group:** CSR-BROMEGRASS. **other id:** Can. Reg. No. 2787. **remarks:** Cultivar with good vigor and seed production, with extensive basal leaf growth. Root habit restricted and creeping. Growth habit and fall frost resistance similar to Regar and Fleet. Rapid regrowth following clipping or grazing. Seed yield excellent. Adapted to the cooler, moist areas of the Canadian prairies and adjacent USA states. Perennial. Cultivar. Seed.

PI 536014. *Medicago sativa* L. FABACEAE Alfalfa

Donated by: Sorensen, E.L., USDA-ARS, Dept. of Agronomy, Throckmorton Hall, Kansas State University, Manhattan, Kansas, United States; and Stuteville, D.L., Dept. of Plant Pathology, Throckmorton Hall, Kansas State University, Manhattan, Kansas, United States; and Horber, E.K., Dept. of Entomology, Waters Hall, Kansas State University, Manhattan, Kansas, United States. **remarks:** Developed by the USDA-ARS and the Kansas Agricultural Experiment Station and released 7 July, 1989. Received October 12, 1989.

donor id: KS153BA3P4. **origin:** United States. **pedigree:** Intercross of 96 Parental lines of KS70AN4BW2M5P1PA3SA3 followed by recurrent phenotypic selection. Estimated germplasm constitution Chilean 58%, Flemish 16%, *M. varia* 13%, Turkistan 6%, Ladak 4%, and *M. falcata* 3%. **other id:** GP-223. **group:** CSR-ALFALFA. **remarks:** Alfalfa germplasm with resistance to anthracnose, bacterial and Fusarium wilts, downy mildew and aphids (pea, blue alfalfa, and spotted alfalfa). ASI scores in fall dormancy trial at St. Paul, MN 5.65 compared to DuPuits 4.73, and Saranac 6.46. **disease resistance:** Anthracnose (race 1), bacterial wilt, downy mildew. Fusarium wilt, Phytophthora root rot. **insect resistance:** Aphids: pea, blue alfalfa and spotted alfalfa. Perennial. Breeding Material. Seed.

PI 536015. *Medicago sativa* L. FABACEAE Alfalfa

Donated by: Sorensen, E.L., USDA-ARS, Dept. of Agronomy, Throckmorton Hall, Kansas State University, Manhattan, Kansas, United States; and Stuteville, D.L., Dept. of Plant Pathology, Throckmorton Hall, Kansas State University, Manhattan, Kansas, United States; and Horber, E.K., Dept. of Entomology, Waters Hall, Kansas State University, Manhattan, Kansas, United States. **remarks:** Developed by the USDA-ARS and the Kansas Agricultural Experiment Station and released 7 July, 1989. Received October 12, 1989.

donor id: KS71AN2BA2M2P4PA2SA2. **origin:** United States. **pedigree:** Interpollination of 78 parental lines selected from alfalfa weevil tolerant populations. Estimated germplasm constitution Chilean 38%, *M. varia* 24%, Flemish 18%, Turkistan 14%, Ladak 3%, *M. falcata* 2%, and Peruvian 1%. **other id:** GP-224. **group:** CSR-ALFALFA. **remarks:** Alfalfa germplasm with resistance to anthracnose, bacterial and Fusarium wilts, downy mildew and aphids (pea, blue alfalfa, and spotted alfalfa). Fall dormancy scores at St. Paul, MN 4.5 compared to DuPuits 4.5 and Saranac 5.3. **disease resistance:** Anthracnose, bacterial wilt, downy mildew. Fusarium wilt, Phytophthora root rot. **insect resistance:** Aphids: pea, blue alfalfa and spotted alfalfa. Perennial. Breeding Material. Seed.

PI 536016. *Sorghum bicolor* (L.) Moench POACEAE Sorghum

Donated by: Miller, F.R., Dept. of Soil and Crop Sciences, Texas A&M University, College Station, Texas, United States; and Toler, R.W., Dept. of Plant Pathology & Microbiology, Texas A&M University, College Station, Texas, United States. **remarks:** Developed by the Texas Agricultural Experiment Station, Texas A&M University and released June, 1989. Received October 12, 1989.

donor id: RTx2858. **origin:** United States. **pedigree:** Tx412/SC599-6/2/SC326-6/3/QL1-1-AB-6-1-1, Bulk-10-3-1-2-x. **other id:** GP-271. **group:** CSR-SORGHUM. **other id:** 80C6828. **remarks:** Germplasm restorer line which carries resistance to maize dwarf mosaic virus (MDMV-A) and restores fertility to hybrids with Al-cytoplasmic genetic male-sterility system. Plant height 100cm. Panicles slightly oval, semi-open and erect. Exsertion excellent. Glumes purple. Midrib juicy. Pollen amount large. Seeds white translucent, medium in size size. Testa non pigmented. ZZ (no starch granules). **disease resistance:** Maize dwarf mosaic virus (MDMV-A). Annual. Breeding Material. Seed.

PI 536017. *Lolium perenne* L. POACEAE Perennial ryegrass

Donated by: Funk, C.R., Soils and Crops Department, New Jersey Agricultural Experiment Stn., Cook College, Rutgers University, New Brunswick, New Jersey, United States. **remarks:** Developed by Pickseed West and the New Jersey Agricultural Experiment Station and released by Jonathan Green and Sons, Cascade International Seed Co. and Hubbard Seed and Supply Co. in August, 1989. Received October 12, 1989.

origin: United States. **cultivar:** SHERWOOD. **pedigree:** Advance generation synthetic selected from progenies of 95 clones from 7 breeding composites using modified backcross technique combined with phenotypic and genotypic recurrent selection. **other id:** PVP 8900141. **source:** Pending. **group:** PVPO. **other id:** SRR. **other id:** CV-126. **group:** CSR-OTHER GRASSES. **remarks:** Synthetic cultivar with endophytic fungus *Acremonium lolii* to enhance resistance to billbug and sod webworm species. Plants leafy, persistent. Turf medium fine-textured medium low-growing with bright dark green color. Maturity medium early. Heat tolerance good. Winter hardiness in New Jersey above average. Seedling vigor excellent. Produces little or no thatch. Susceptible to stem rust in Oregon. **insect resistance:** Billbugs, lepidopterous webworm species. **disease resistance:** Large brown patch, races of crown rust. Winter net blotch disease. Perennial. Cultivar. Seed.

PI 536018. *Lolium perenne* L. POACEAE Perennial ryegrass

Donated by: Meyer, W.A.; Rose-Fricker, C.A., Pure-Seed Testing Co., P.O. Box 499, Hubbard, Oregon, United States; and Pipen, G.W., Pickseed West, P.O. Box 888, Tangent, Oregon, United States; and Funk, C.R., Soils and Crops Department, New Jersey Agricultural Experiment Stn., Cook College, Rutgers University, New Brunswick, New Jersey, United States. **remarks:** Developed by Pure-Seed Testing Co., the New Jersey Agricultural Experiment Station, and Pickseed West and released by the latter in September, 1985. Received October 12, 1989.

PI 536018-continued

donor id: Pure-Seed 247. **origin:** United States. **cultivar:** JAZZ. **pedigree:** 12 rust resistant clones crossed with ryegrasses from New Jersey and California, followed by three cycles of phenotypic recurrent selection. **other id:** PVP 8600071. **source:** Certificate in force. **group:** PVPO. **other id:** CV-127. **group:** CSR-OTHER GRASSES. **remarks:** Turf-type cultivar with early maturity, high seed yields, and disease resistance. Turf persistent with medium-fine texture, medium-high density and good mowing qualities. Plants dark green. Seedling vigor, wear tolerance and recuperative abilities good. Produces little or no thatch. Suitable for temperate climates where perennial ryegrass are well adapted. **disease resistance:** Stem rust (*Puccinia graminis*); Crown rust (*Puccinia coronata*). Winter net blotch (*Drechslera dictyoides* f. sp. perenne). Large brown patch (*Rhizoctonia solani*). Perennial. Cultivar. Seed.

PI 536019. *Phaseolus vulgaris* L. FABACEAE Dry bean

Donated by: Beaver, J.S., Department of Agronomy & Soils, University of Puerto Rico, Mayaguez, Puerto Rico; and Badel, R.E., Department of Crop Protection, University of Puerto Rico, Mayaguez, Puerto Rico; and Freytag, G.F., Tropical Agric. Research Station, USDA-ARS, Mayaguez, Puerto Rico. **remarks:** Developed by the Puerto Rico Agricultural Experiment Station and USDA-ARS and released in 1979. Received October 12, 1989.

donor id: 2W-33-2. **origin:** Puerto Rico. **cultivar:** ARROYO LORO. **pedigree:** Bonita*2/La Vega, F6. **other id:** CV-88. **group:** CSR-OTHER LEGUMES. **remarks:** White bean with desirable yield and stability characteristics. Three year yield average 2.55 and 1.73 metric tons per hectare at the Fortuna and Isabella Substations. Growth habit Type II. Plant height range 40 to 45cm. Days to maturity 90 or less. Growth and yield good under hot (30-35 degree C) and humid conditions. Susceptible to angular leaf spot (*Phaeoisariopsis griseola*). **disease resistance:** Bean rust (*Uromyces appiniculatus* var. *appendiculatus*). Bean common mosaic virus. Annual. Cultivar. Seed.

PI 536020 to 536025. *Pennisetum polystachion* (L.) Schultes POACEAE

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. **remarks:** Received through IBPGR, Rome, Italy. Received October 07, 1988.

PI 536020 to 536025-continued

- PI 536020 donor id: MTB 014. origin: Burundi. collected: May 22, 1986. collector: S. Mengistu, J. Toll, N. Nsaku, J. Terry, P. Brandelard. collector id: MTB 014. locality: Red/brown sandy loam, alongside sorghum field, Sugar cane farm, 8km E of Isabu Mosso to Sosumn, Burkemba Commune, Rutana Province. latitude: 04 deg. 00 min. S. longitude: 30 deg. 08 min. E. elevation: 1200m. restricted: QUAR. remarks: Plants 200cm tall, erect and medium leafy. Population >500, 500 sampled. Fusarium disease present. Wild. Seed.
- PI 536021 donor id: MTB 017. origin: Burundi. collected: May 23, 1986. collector: S. Mengistu, J. Toll, N. Nsaku, J. Terry, P. Brandelard. collector id: MTB 017. locality: Dark brown loam, abandoned field between cultivated fields at base of encampment, 7km S of Giharo Road, Giharo Commune, Rutana Province. latitude: 03 deg. 48 min. S. longitude: 30 deg. 13 min. E. elevation: 1200m. restricted: QUAR. remarks: Plants 150cm tall, moderately leafy. Population >500, 500 sampled. Smut and Fusarium disease present. Perennial. Wild. Seed.
- PI 536022 donor id: MTB 027. origin: Burundi. collected: May 24, 1986. collector: S. Mengistu, J. Toll, N. Nsaku, J. Terry, P. Brandelard. collector id: MTB 027. locality: Brown loam, alongside path on field border, 10km NE of Kinyinya, S of Colline Musumga, Kinyinya Commune, Ruyigi Province. latitude: 03 deg. 34 min. S. longitude: 30 deg. 22 min. E. elevation: 1230m. restricted: QUAR. remarks: Plants 250cm tall, fairly leafy and robust. Smut disease present. Population approx. 1000, 300 sampled. Wild. Seed.
- PI 536023 donor id: MTB 035. origin: Burundi. collector: S. Mengistu, J. Toll, N. Nsaku, J. Terry, P. Brandelard. collector id: MTB 035. locality: Light brown clay, prone to flooding, field border near track, in valley bottom, 6.25km NW of Gisuru on Route R.I.G. 3 to Nybitare, Gisuru Commune, Ruyigi Province. latitude: 03 deg. 25 min. S. longitude: 30 deg. 29 min. E. elevation: 1230m. restricted: QUAR. remarks: Population >500, 60 sampled. Wild. Seed.
- PI 536024 donor id: MTB 056. origin: Burundi. collected: May 29, 1986. collector: S. Mengistu, J. Toll, N. Nsaku, J. Terry, P. Brandelard. collector id: MTB 056. locality: Brown sandy loam, woodland clearing, 1.25km N of road RN5 of Gauk to Murwi, Buganda Commune, Cibitoke Province. latitude: 02 deg. 56 min. S. longitude: 29 deg. 12 min. E. elevation: 930m. restricted: QUAR. remarks: Population >500, 100 sampled. Wild. Seed.

PI 536020 to 536025-continued

PI 536025 donor id: MTB 061. origin: Burundi. collected: May 30, 1986. collector: S. Mengistu, J. Toll, N. Nsaku, J. Terry, P. Brandelard. collector id: MTB 061. locality: Red loam, fallow land, 4km E of Rugombo, Rugombo Commune, Cibitoke Province. latitude: 02 deg. 47 min. S. longitude: 29 deg. 06 min. E. elevation: 990m. restricted: QUAR. remarks: Population >1000, 500 sampled. Wild. Seed.

PI 536026. *Pennisetum purpureum* Schumach. POACEAE

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. remarks: Received through IBPGR, Rome, Italy. Received October 07, 1988.

donor id: MTB 036. origin: Burundi. collected: May 26, 1986. collector: S. Mengistu, J. Toll, N. Nsaku, J. Terry, P. Brandelard. collector id: MTB 036. locality: Red loam, beside road on embankment (to prevent erosion) on S side of bridge over Mutsindozi river, 22.5km NE of Makamba on road Rig, Kayogoro Commune, Makamba Province. latitude: 04 deg. 06 min. S. longitude: 29 deg. 57 min. E. elevation: 1250m. restricted: QUAR. remarks: Plants 150cm, short with narrow leaves. Likely they originated from tall robust *P. purpureum* population which appears to be naturally occurring on the bank of Mutsindozi river nearby. No pigmentation of spike. Population >500, 200 sampled. Wild. Seed.

PI 536027. *Zornia setosa* Baker f. FABACEAE

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. remarks: Received through IBPGR, Rome, Italy. Received October 07, 1988.

donor id: MTB 123. origin: Rwanda. collected: May 07, 1986. collector: S. Mengistu, J. Toll, B. Bucumi. collector id: MTB 123. locality: Red clay, grassland heavily grazed, 5km W of ISAR Station Karama in station grounds, Gashora Commune, Kigali Province. latitude: 02 deg. 16 min. S. longitude: 30 deg. 14 min. E. elevation: 1460m. remarks: Population >200, 10 sampled. Wild. Seed.

PI 536028 to 536029. *Cynodon dactylon* (L.) Pers. POACEAE Bermudagrass

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. remarks: Received through IBPGR, Rome, Italy. Received October 07, 1988.

PI 536028 to 536029-continued

PI 536028 donor id: MTB 097. origin: Zaire. collected: June 15, 1986. collector: S. Mengistu, J. Toll, B. Bucumi. collector id: MTB 097. locality: Strip of pasture alongside coffee plantation and road, 10km W of Beni, Kivu Province. latitude: 00 deg. 30 min. N. longitude: 29 deg. 26 min. E. elevation: 1100m. Wild. Seed.

PI 536029 donor id: MTB 115. origin: Zaire. collected: June 23, 1986. collector: S. Mengistu, J. Toll, B. Bucumi. collector id: MTB 115. locality: Brown sandy loam, small grazing area and market place, 76km SW of Goma to Bukavu on W shore of Lake Kivu, Kivu Province. latitude: 01 deg. 57 min. S. longitude: 28 deg. 55 min. E. elevation: 1500m. remarks: Plants stoloniferous and stemy. Also present *Eleusine indica*. Population >500, 200 sampled. Wild. Seed.

PI 536030. *Cynodon* sp. POACEAE

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. remarks: Received through IBPGR, Rome, Italy. Received October 07, 1988.

donor id: MTB 086. origin: Zaire. collected: June 13, 1986. collector: S. Mengistu, J. Toll, M. Kanzila, J. Terry, M. Mpelenda. collector id: MTB 086. locality: Grey/brown silt, grassland, swampy area, has been burnt, 5.5km NW of Rwindi to Lubero, Kivu Province. latitude: 00 deg. 48 min. S. longitude: 29 deg. 16 min. E. elevation: 1030m. remarks: Dense stand with patches of *Setaria*. Population >1000, 600 sampled. Wild. Seed.

PI 536031. *Paspalum auriculatum* C. Presl POACEAE

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. remarks: Received through IBPGR, Rome, Italy. Received October 07, 1988.

donor id: MTB 067. origin: Zaire. collected: June 06, 1986. collector: S. Mengistu, J. Toll, M. Kanzila, J. Terry, M. Mpelenda. collector id: MTB 067. locality: Sandy loam, roadside forest grazed by goats, 163km NW of Bukavu to Walikale, Kivu Province. latitude: 01 deg. 39 min. S. longitude: 28 deg. 11 min. E. elevation: 850m. remarks: Plants 40cm tall, leafy. Population >300, 150 sampled. Wild. Seed.

PI 536032. *Paspalum scrobiculatum* L. POACEAE Kodo

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. **remarks:** Received through IBPGR, Rome, Italy. Received October 07, 1988.

donor id: MTB 066. **origin:** Zaire. **collected:** June 06, 1986. **collector:** S. Mengistu, J. Toll, M. Kanzila, J. Terry, M. Mpelenda. **collector id:** MTB 066. **locality:** Sandy loam, orange, alongside road in gravel, 135km NW of Bukavu to Walikale, Kivu Province. **latitude:** 01 deg. 45 min. S. **longitude:** 28 deg. 25 min. E. **elevation:** 760m. **remarks:** Plants 40cm tall. Stoloniferous. Population >200, 60 sampled. Perennial. Wild. Seed.

PI 536033. *Pennisetum polystachion* (L.) Schultes POACEAE

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. **remarks:** Received through IBPGR, Rome, Italy. Received October 07, 1988.

donor id: MTB 065. **origin:** Zaire. **collected:** June 06, 1986. **collector:** S. Mengistu, J. Toll, M. Kanzila, J. Terry, M. Mpelenda. **collector id:** MTB 065. **locality:** Sandy loam, alongside road in gravel, 135km NW of Bukavu to Walikale, Kivu Province. **latitude:** 09 deg. 45 min. S. **longitude:** 28 deg. 25 min. E. **elevation:** 760m. **restricted:** QUAR. **remarks:** Plants 150cm, not leafy, spindley. Population >1000, 500 sampled. Wild. Seed.

PI 536034. *Pennisetum trachyphyllum* Pilger POACEAE

Donated by: Toll, J.; Terry, J., IBPGR, Rome, Italy; and Mengistu, S., ILCA, Nairobi, Kenya. **remarks:** Received through IBPGR, Rome, Italy. Received October 07, 1988.

donor id: MTB 114. **origin:** Zaire. **collected:** June 23, 1986. **collector:** S. Mengistu, J. Toll, M. Kanzila, J. Terry, M. Mpelenda. **collector id:** MTB 114. **locality:** Brown sandy loam, alongside road and water, 34km SW of Goma to Bukavu, W edge of Lake Kivu, Kivu Province. **latitude:** 09 deg. 44 min. S. **longitude:** 28 deg. 58 min. E. **elevation:** 1460m. **restricted:** QUAR. **remarks:** Plants 150cm tall. Population >500, 50 sampled. Wild. Seed.

PI 536035. *Solanum melongena* L. SOLANACEAE Eggplant

Donated by: Alexander, M.P., Division of Genetic Resources, I.I.H.R., Bangalore, Karnataka, India. **remarks:** Received through the National Bureau of Plant Genetic Resources, New Delhi. Received September 09, 1989.

PI 536035-continued

origin: India. cultivar: ARKA SHEEL. remarks: Fruits long (17-20cm), purple. Cultivar. Seed.

PI 536036 to 536044. Ipomoea triloba L. CONVOLVULACEAE

Donated by: De La Puente, F., International Potato Center, P.O. Box 5949, Lima, Peru. Received August 07, 1989.

PI 536036 donor id: CIP 460069. origin: Mexico. local name: Bejuco del Monte. collector: D.F. Austin, P. De La Puente. collector id: DLP 2913. locality: 0.1km NE Paso Dona Juana, Palmasola Province. latitude: 19 deg. 18 min. N. longitude: 96 deg. 18 min. W. elevation: 40m. Wild. Seed.

PI 536037 donor id: CIP 460123. origin: Mexico. collector: D.F. Austin, P. De La Puente. collector id: DLP 2920. locality: 0.1km E Conejos, Puente Nacional Province. latitude: 19 deg. 28 min. N. longitude: 96 deg. 30 min. W. elevation: 240m. Wild. Seed.

PI 536038 donor id: CIP 460073. origin: Mexico. collector: D.F. Austin, P. De La Puente. collector id: DLP 2926. locality: 0.1km E Playa Brisas del Mar. latitude: 18 deg. 58 min. N. longitude: 96 deg. 00 min. W. elevation: 2m. Wild. Seed.

PI 536039 donor id: CIP 460074. origin: Mexico. collector: D.F. Austin, P. De La Puente. collector id: DLP 2928. locality: 8km N Cardenas-Comalcalco, Cardenas Province. latitude: 18 deg. 00 min. N. longitude: 93 deg. 10 min. W. elevation: 25m. Wild. Seed.

PI 536040 donor id: CIP 460124. origin: Mexico. collector: D.F. Austin, P. De La Puente. collector id: DLP 2930. locality: 1 km S Camalcalco, Comalcalco Province. latitude: 18 deg. 06 min. N. longitude: 93 deg. 04 min. W. elevation: 15m. Wild. Seed.

PI 536041 donor id: CIP 460078. origin: Mexico. collector: D.F. Austin, P. De La Puente. collector id: DLP 2937. locality: 0.1km NE Frontera, Frontera Province. latitude: 18 deg. 25 min. N. longitude: 92 deg. 32 min. W. elevation: 5m. Wild. Seed.

PI 536042 donor id: CIP 460079. origin: Mexico. collector: D.F. Austin, P. De La Puente. collector id: DLP 2942. locality: 0.1km S Villa Madero, Champoton Province. latitude: 19 deg. 10 min. N. longitude: 90 deg. 50 min. W. elevation: 20m. Wild. Seed.

PI 536036 to 536044-continued

PI 536043 donor id: CIP 460080. origin: Mexico. collector: D.F. Austin, P. De La Puente. collector id: DLP 2943. locality: 0.2km S Champoton-Escarcega, Champoton Province. latitude: 19 deg. 11 min. N. longitude: 90 deg. 50 min. W. elevation: 30m. Wild. Seed.

PI 536044 donor id: CIP 460081. origin: Mexico. collector: D.F. Austin, P. De La Puente. collector id: DLP 2953. locality: 0.5km E Emiliano Zapata, Villa Corso Province. latitude: 16 deg. 10 min. N. longitude: 93 deg. 05 min. W. elevation: 640m. Wild. Seed.

PI 536045. *Avena sativa* L. POACEAE Common oat

Donated by: Kibite, S., Agriculture Canada, Lacombe Research Station, Bag Service 5000, Lacombe, Alberta, Canada. remarks: Developed by Agriculture Canada, Lacombe Research Station and released in 1989. Received October 27, 1989.

donor id: LAO-423-001. origin: Canada. pedigree: Athabasca/LAO-364-064. other id: GP-29. group: CSR-OATS. remarks: Germplasm with very early maturity, lodging resistance, and good agronomic characteristics. Plant height intermediate, 10cm shorter than Athabasca. Culms medium thick and strong. Panicles equilateral, erect, medium wide and long, ovate and intermediate in density. Kernels narrow, mid-long and yellow. Test weight high. Suitable for breeding programs in northern climates. Spring Annual. Breeding Material. Seed.

PI 536046 to 536047. *Oryza sativa* L. POACEAE Rice

Donated by: China National Rice Research Inst., Hangzhou, China, Peoples Repub of. Received April 10, 1989.

PI 536046 origin: China, Peoples Repub of. cultivar: CONG GUI 314. other id: F 4. Cultivar. Seed.

PI 536047 origin: China, Peoples Repub of. cultivar: TE-QING. other id: F 5. Cultivar. Seed.

PI 536048. *Prunus padus* var. *commutata* Dippel ROSACEAE

Donated by: Darris, D.C., Plant Materials Center, USDA-SCS, P.O. Box 1458, Bismark, North Dakota, United States. remarks: Received through NPMC, Beltsville, Maryland. Received August 31, 1989.

PI 536048-continued

donor id: 9006073. **origin:** United States. **collected:** 1964. **other id:** SD-131. **locality:** Oscar Hobbie Farm, Moody County, 4.8km S of Brookings County Line, near Flandreau, South Dakota. **remarks:** Plants up to 9.12m. Flowers borne singly, fragrant, appearing late April-early May. Root stocks compatible with chokecherry. Used as medium tree component of multi-row field and farmstead shelterbelts, single row field windbreaks, wildlife plantings, and recreational area developments in North and South Dakota and W Minnesota. Not affected by black knot, a limiting factor for this area. Cultivated. Seed.

PI 536049. *Ulmus hybrid* ULMACEAE

Donated by: Townsend, A.M., U.S. National Arboretum, USDA-ARS, Washington, D.C., United States. Received November 07, 1989.

donor id: NA 55393. **origin:** United States. **cultivar:** FRONTIER. **pedigree:** *Ulmus carpinifolia*/*U. parvifolia*. **remarks:** At 19 years, plant 8.2m tall with crown spread of 4.9m. Crown pyramidal. Leaves lanceolate, doubly serrate. Young leaves red (47A), mature to yellow green (147A). Autumn leaf color red purple (59A). Branch angle average 51 deg. Bark greyed green (197B) with large orange lenticels. Flowers absent. Reliably adaptable to USDA zone 5. Used as street, park, landscape or highway tree. **disease resistance:** High to Dutch elm (*Ceratocystis ulmi*). **insect resistance:** Moderate to elm beetle (*Xanthogaleruca luteola*). Cultivar. Plant.

PI 536050. *Ulmus wilsoniana* C. Schneider ULMACEAE

Donated by: Townsend, A.M., U.S. National Arboretum, USDA-ARS, Washington, D.C., United States. Received November 07, 1989.

donor id: NA 55398. **origin:** United States. **cultivar:** PROSPECTOR. **pedigree:** Seedling selection. **remarks:** Plant 7.0m tall with crown spread of 6.4m at 9 years old. Crown vase-shaped, becoming pendulous at a lower height than American elm. Young leaves orange red (35A), maturing to yellow green (144A) to green (137B). Autumn leaf color yellow (13A). Branch angle average 53 deg. Reliably adaptable to USDA zones 4-7. Excellent street, lawn, highway or park tree. Heat, drought, and cold tolerant. **disease resistance:** Dutch elm disease (*Ceratocystis ulmi*). **insect resistance:** Elm leaf beetle (*Xanthogaleruca luteola*). Cultivar. Plant.

PI 536051 to 536312. *Arachis hypogaea* L. FABACEAE Peanut

Donated by: Simpson, C.E., Texas Agr. Exp. Sta., Texas A&M University, P.O. Box 292, Stephenville, Texas, United States.
remarks: Collected under one or more IBPGR project(s) for *Arachis* germplasm collection in Latin America 1975-1986, in collaboration with CENARGEN/EMBRAPA, Brazil, INTA and IBONE, Argentina, TAES, USA and the USDA. Received July 1989.

- PI 536051 **donor id:** US 876. **origin:** Brazil. **collected:** August 16, 1984. **collector id:** VSGoStW-7739. **other id:** BRA-018465. **locality:** Three km NW of Piranhas, Goias, Hwy. BR-158 toward Bom Jardim de Goias. **latitude:** 16 deg. 23 min. S. **longitude:** 51 deg. 52 min. W. **elevation:** 370m. **remarks:** This collection consisted of a few small purple seeds in VSGoStW-7738. Annual. Primitiv-cv. Seed.
- PI 536052 **donor id:** US 877. **origin:** Brazil. **collected:** August 15, 1984. **collector id:** VSGoStW-7729. **other id:** BRA-018007. **locality:** Farmer's seed supply, 1 km W of Turvania, Goias, Hwy. Go-060. **latitude:** 16 deg. 36 min. S. **longitude:** 50 deg. 09 min. W. **elevation:** 620m. **remarks:** Obtained from a farmer's two year old seed stocks. Appeared to be a small Tatu variety. Annual. Cultivated. Seed.
- PI 536053 **donor id:** US 878. **origin:** Brazil. **collected:** August 16, 1984. **collector id:** VSGoStW-7735. **other id:** BRA-018023. **locality:** Farmers market, Piranhas, Goias, Hwy. BR-158. **latitude:** 16 deg. 25 min. S. **longitude:** 51 deg. 50 min. W. **elevation:** 370m. **remarks:** Probably Tatu variety. Annual. Cultivated. Seed.
- PI 536054 **donor id:** US 879. **origin:** Brazil. **collected:** August 16, 1984. **collector id:** VSGoStW-7736. **other id:** BRA-018031. **locality:** Farmers market, Piranhas, Goias, Hwy. BR-158. **latitude:** 16 deg. 25 min. S. **longitude:** 51 deg. 50 min. W. **elevation:** 370m. **remarks:** Appeared to be Tatu variety. Annual. Cultivated. Seed.
- PI 536055 **donor id:** US 880. **origin:** Brazil. **collected:** August 16, 1984. **collector id:** VSGoStW-7738. **other id:** BRA-018040. **locality:** Three km NW of Piranhas, Goias, Hwy BR-158 toward Bom Jardim de Goias. **latitude:** 16 deg. 23 min. S. **longitude:** 51 deg. 52 min. W. **elevation:** 370m. **remarks:** Collected from a farmer who said the plants took 6 months to mature. Seeds large, tan. Pods with strong veination. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536056 donor id: US 881. origin: Brazil. collected: August 18, 1984. collector id: VSGoStW-7776. other id: BRA-018112. locality: Farmer, 164km N of Barra do Garcas, Mato Grosso, at Rio Areaoes. latitude: 14 deg. 33 min. S. longitude: 52 deg. 20 min. W. elevation: 450m. Annual. Primitiv-cv. Seed.
- PI 536057 donor id: US 882. origin: Brazil. collected: August 19, 1984. collector id: VSGoStW-7777. other id: BRA-08473. locality: Agua Boa, Mato Grosso, Hwy. BR-158 N of Barro do Garcas. latitude: 14 deg. 06 min. S. longitude: 52 deg. 11 min. W. elevation: 350m. remarks: Collected from a farmer who has emigrated from Rio Grande do Sul. Nut large, tan type. Known as Guaycuru type. Annual. Primitiv-cv. Seed.
- PI 536058 donor id: US 883. origin: Brazil. collected: August 20, 1984. collector id: VSGoStW-7801. other id: BRA-018163. locality: Purchased in small store, Altoda Boa Vista, Mato Grosso, 88km W of Sao Felix. latitude: 11 deg. 40 min. S. longitude: 51 deg. 23 min. W. elevation: 300m. remarks: Nut large, tan. Probably Guaycuru type. Annual. Primitiv-cv. Seed.
- PI 536059 donor id: US 884. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7824. other id: BRA-018198. locality: Farmer in small village, Canabrava, Mato Grosso, 23.5km W of BR-158, 17.5km S of Porto Alegre do Mato Grosso. latitude: 11 deg. 02 min. S. longitude: 51 deg. 52 min. W. elevation: 250m. remarks: Seeds red. Annual. Primitiv-cv. Seed.
- PI 536060 donor id: US 885. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7825. other id: BRA-018201. locality: Farmer in small village, Canabrava, Mato Grosso, 23.5km W of BR-158, 17.5km S of Porto Alegre do Mato Grosso. latitude: 11 deg. 02 min. S. longitude: 51 deg. 52 min. W. elevation: 250m. remarks: Seeds red. Annual. Primitiv-cv. Seed.
- PI 536061 donor id: US 886. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7826. other id: BRA-018210. locality: Farmer in small village, Canabrava, Mato Grosso, 23.5km W of BR-158, 17.5km S of Porto Alegre do Mato Grosso. latitude: 11 deg. 02 min. S. longitude: 51 deg. 52 min. W. elevation: 250m. remarks: Seed coat purple. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536062 donor id: US 887. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7827. other id: BRA-018228. locality: Farmer in small village, Canabrava, Mato Grosso, 23.5km W of BR-158, 17.5km S of Porto Alegre do Mato Grosso. latitude: 11 deg. 02 min. S. longitude: 51 deg. 52 min. W. elevation: 250m. remarks: Seed coat red. Annual. Primitiv-cv. Seed.
- PI 536063 donor id: US 888. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7828. other id: BRA-018236. locality: Farmer in small village, Canabrava, Mato Grosso, 23.5km W of BR-158, 17.5km S of Porto Alegre do Mato Grosso. latitude: 11 deg. 02 min. S. longitude: 51 deg. 52 min. W. elevation: 250m. remarks: Seeds small, tan. Annual. Primitiv-cv. Seed.
- PI 536064 donor id: US 889. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7829. other id: BRA-018244. locality: Farmer in small village, Canabrava, Mato Grosso, 23.5km W of BR-158, 17.5km S of Porto Alegre do Mato Grosso. latitude: 11 deg. 02 min. S. longitude: 51 deg. 52 min. W. elevation: 250m. remarks: Seeds large, with tan seed coat. Annual. Primitiv-cv. Seed.
- PI 536065 donor id: US 890. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7832. other id: BRA-018252. locality: Vendor, gas station, Porto Alegre do Mato Grosso, Mato Grosso. latitude: 10 deg. 53 min. S. longitude: 51 deg. 37 min. W. elevation: 250m. Annual. Primitiv-cv. Seed.
- PI 536066 donor id: US 891. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7833. other id: BRA-018261. locality: Seven km W of Confresa (BR-158), Mato Grosso, 5km N of Porto Alegre do Mato Grosso. latitude: 10 deg. 50 min. S. longitude: 51 deg. 44 min. W. elevation: 240-260m. remarks: Collected from a farmer's planting. Rhizobium vial 589 (VSGoStW-7838) collected from the plants. Seeds large, tan. Annual. Primitiv-cv. Seed.
- PI 536067 donor id: US 892. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7839. other id: BRA-018279. locality: Farmer's harvest, 7km W then 5km S of Confresa (BR-158), Mato Grosso, 5km N of Porto Alegre do Mato. latitude: 10 deg. 55 min. S. longitude: 51 deg. 44 min. W. elevation: 240-260m. remarks: Seeds large, tan. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536068 donor id: US 893. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7841. other id: BRA-018287. locality: Farmer's harvest,, 8km W of Confresa (BR-158), Mato Grosso, 5km N of Porto Alegre do Mato Grosso. latitude: 10 deg. 50 min. S. longitude: 51 deg. 45 min. W. elevation: 240-260m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536069 donor id: US 894. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7842. other id: BRA-018295. locality: Farmer's harvest, 8km W of Confresa (BR-158), Mato Grosso, 5km N of Porto Alegre do Mato Grosso. latitude: 10 deg. 50 min. S. longitude: 51 deg. 45 min. W. elevation: 240-260m. remarks: Seeds large, tan. Mixed collection with VSGoStW-7841. (PI 536068). Annual. Primitiv-cv. Seed.
- PI 536070 donor id: US 895. origin: Brazil. collected: August 23, 1984. collector id: VSGoStW-7843. other id: BRA-018309. locality: Farmer's harvest, 8km west of Confresa (BR-158), Mato Grosso, 5km N of Porto Alegre do Mato Grosso. latitude: 10 deg. 50 min. S. longitude: 51 deg. 45 min. W. elevation: 240-260m. remarks: Collected from same farmer's harvest as VSGoStW-7841 and 7842. Seeds small, red. Annual. Primitiv-cv. Seed.
- PI 536071 donor id: US 896. origin: Brazil. collected: August 24, 1984. collector id: VSGoStW-7859. other id: BRA-018325. locality: Roadside vendor, 5km W of Santa Terezinha, Mato Grosso. latitude: 10 deg. 28 min. S. longitude: 50 deg. 33 min. W. elevation: 225m. Annual. Primitiv-cv. Seed.
- PI 536072 donor id: US 897. origin: Brazil. collected: August 24, 1984. collector id: VSGoStW-7860. other id: BRA-018333. locality: Small store, Santa Terezinha, Mato Grosso. latitude: 10 deg. 28 min. S. longitude: 50 deg. 31 min. W. elevation: 225m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536073 donor id: US 898. origin: Brazil. collected: August 25, 1984. collector id: VSGoStW-7865. other id: BRA-018376. locality: Six km E of Santa Terezinha, Mato Grosso, across River Araguaia in Goias. latitude: 10 deg. 26 min. S. longitude: 50 deg. 27 min. W. elevation: 225m. remarks: Collected from an Indian tribe living on Ilha do Bananal. Seeds large, red. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536074 donor id: US 899. origin: Brazil. collected: August 25, 1984. collector id: VSGoStW-7866. other id: BRA-018384. locality: Six km E of Santa Terezinha, Mato Grosso, across River Araguaia in Goias. latitude: 10 deg. 26 min. S. longitude: 50 deg. 27 min. W. elevation: 225m. remarks: Collected from an Indian tribe living on Ilha do Bananal. Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536075 donor id: US 900. origin: Brazil. collected: August 26, 1984. collector id: VSGoStW-7871. other id: BRA-018406. locality: Vender, Villa Rica, Mato Grosso, 35km S of Mato Grosso/Para state line Hwy. BR-158. latitude: 10 deg. 05 min. S. longitude: 51 deg. 05 min. W. elevation: 250m. remarks: Seeds extra large, tan. Annual. Primitiv-cv. Seed.
- PI 536076 donor id: US 901. origin: Brazil. collected: August 29, 1984. collector id: VSGoStW-7888. other id: BRA-018431. locality: Vender, Sao Siguel do Araguaio, Goias. latitude: 13 deg. 16 min. S. longitude: 50 deg. 10 min. W. elevation: 360m. remarks: Seeds extra large, tan. Annual. Primitiv-cv. Seed.
- PI 536077 donor id: US 902. origin: Brazil. collected: August 29, 1984. collector id: VSGoStW-7890. other id: BRA-018449. locality: Vendor, Luis Alves, Goias. latitude: 13 deg. 13 min. S. longitude: 50 deg. 34 min. W. elevation: 280m. remarks: Seeds red. Annual. Primitiv-cv. Seed.
- PI 536078 donor id: US 903. origin: Brazil. local name: Sape Ma. collected: February 09, 1984. collector id: US-903. Annual. Primitiv-cv. Seed.
- PI 536079 donor id: US 904. origin: Brazil. local name: Tatu Gigante. collected: February 09, 1984. collector id: US-904. Annual. Primitiv-cv. Seed.
- PI 536080 donor id: US 905. origin: Brazil. local name: Tatu. collected: February 09, 1984. collector id: US-905. Annual. Primitiv-cv. Seed.
- PI 536081 donor id: US 906. origin: Brazil. local name: Beltsville. collected: February 09, 1984. collector id: US-906. Annual. Primitiv-cv. Seed.
- PI 536082 donor id: US 907. origin: Brazil. local name: Tatu l. collected: February 09, 1984. collector id: US-907. Annual. Primitiv-cv. Seed.
- PI 536083 donor id: US 908. origin: Brazil. local name: Alabanca-10. collected: February 09, 1984. collector id: US-908. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536084 donor id: US 909. origin: Brazil. local name: Yagem Liza. collected: February 09, 1984. collector id: US-909. Annual. Primitiv-cv. Seed.
- PI 536085 donor id: US 910. origin: Brazil. local name: Sape Roxo. collected: February 09, 1984. collector id: US-910. Annual. Primitiv-cv. Seed.
- PI 536086 donor id: US 911. origin: Brazil. local name: Virginia-269. collected: February 09, 1984. collector id: US-911. Annual. Primitiv-cv. Seed.
- PI 536087 donor id: US 912. origin: Brazil. local name: Sape Mirin. collected: February 09, 1984. collector id: US-912. Annual. Primitiv-cv. Seed.
- PI 536088 donor id: US 913. origin: Brazil. local name: Maguary. collected: February 09, 1984. collector id: US-913. Annual. Primitiv-cv. Seed.
- PI 536089 donor id: US 914. origin: Brazil. local name: 28-204. collected: February 09, 1984. collector id: US-914. Annual. Primitiv-cv. Seed.
- PI 536090 donor id: US 915. origin: Brazil. local name: Arachatuba Acu. collected: February 09, 1984. collector id: US-915. Annual. Primitiv-cv. Seed.
- PI 536091 donor id: US 916. origin: Brazil. local name: Sape Roxo-B(or 13). collected: February 09, 1984. collector id: US-916. Annual. Primitiv-cv. Seed.
- PI 536092 donor id: US 917. origin: Brazil. local name: Sape Roxo. collected: February 09, 1984. collector id: US-917. Annual. Primitiv-cv. Seed.
- PI 536093 donor id: US 918. origin: Brazil. local name: Roxo. collected: February 09, 1984. collector id: US-918. Annual. Primitiv-cv. Seed.
- PI 536094 donor id: US 919. origin: Brazil. local name: Alabama. collected: February 09, 1984. collector id: US-919. Annual. Primitiv-cv. Seed.
- PI 536095 donor id: US 920. origin: Brazil. local name: Roxo-54. collected: February 09, 1984. collector id: US-920. Annual. Primitiv-cv. Seed.
- PI 536096 donor id: US 921. origin: Brazil. local name: Ipeal-1. collected: February 09, 1984. collector id: US-921. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536097 donor id: US 922. origin: Brazil. local name: Ipeal-2.
collected: February 09, 1984. collector id: US-922.
Annual. Primitiv-cv. Seed.
- PI 536098 donor id: US 923. origin: Brazil. local name: Ipeal-3.
collected: February 09, 1984. collector id: US-923.
Annual. Primitiv-cv. Seed.
- PI 536099 donor id: US 924. origin: Brazil. local name: V-4.
collected: February 09, 1984. collector id: US-924.
Annual. Primitiv-cv. Seed.
- PI 536100 donor id: US 925. origin: Brazil. local name: Ipeal-5.
collected: February 09, 1984. collector id: US-925.
Annual. Primitiv-cv. Seed.
- PI 536101 donor id: US 926. origin: Brazil. local name: Ipeal-7.
collected: February 09, 1984. collector id: US-926.
Annual. Primitiv-cv. Seed.
- PI 536102 donor id: US 927. origin: Brazil. local name: Ipeal-11.
collected: February 09, 1984. collector id: US-927.
Annual. Primitiv-cv. Seed.
- PI 536103 donor id: US 928. origin: Brazil. local name: Ipeal-12.
collected: February 09, 1984. collector id: US-928.
Annual. Primitiv-cv. Seed.
- PI 536104 donor id: US 929. origin: Brazil. local name: Ipeal-15.
collected: February 09, 1984. collector id: US-929.
Annual. Primitiv-cv. Seed.
- PI 536105 donor id: US 930. origin: Brazil. local name: 47-16.
collected: February 09, 1984. collector id: US-930.
Annual. Primitiv-cv. Seed.
- PI 536106 donor id: US 931. origin: Brazil. local name: Ipeal-16.
collected: February 09, 1984. collector id: US-931.
Annual. Primitiv-cv. Seed.
- PI 536107 donor id: US 932. origin: Brazil. local name: Ipeal-17.
collected: February 09, 1984. collector id: US-932.
Annual. Primitiv-cv. Seed.
- PI 536108 donor id: US 933. origin: Brazil. local name: V-78.
collected: February 09, 1984. collector id: US-933.
Annual. Primitiv-cv. Seed.
- PI 536109 donor id: US 934. origin: Brazil. local name: Ipeal-19.
collected: February 09, 1984. collector id: US-934.
Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536110 donor id: US 935. origin: Brazil. local name: Ipeal-20.
collected: February 09, 1984. collector id: US-935.
Annual. Primitiv-cv. Seed.
- PI 536111 donor id: US 936. origin: Brazil. local name: Ipeal-21.
collected: February 09, 1984. collector id: US-936.
Annual. Primitiv-cv. Seed.
- PI 536112 donor id: US 937. origin: Brazil. local name: Ipeal-22.
collected: February 09, 1984. collector id: US-937.
Annual. Primitiv-cv. Seed.
- PI 536113 donor id: US 938. origin: Brazil. local name: Ipeal-24.
collected: February 09, 1984. collector id: US-938.
Annual. Primitiv-cv. Seed.
- PI 536114 donor id: US 939. origin: Brazil. local name: Ipeal-27.
collected: February 09, 1984. collector id: US-939.
Annual. Primitiv-cv. Seed.
- PI 536115 donor id: US 940. origin: Brazil. local name: Ipeal-29.
collected: February 09, 1984. collector id: US-940.
Annual. Primitiv-cv. Seed.
- PI 536116 donor id: US 941. origin: Brazil. local name: Ipeal-30.
collected: February 09, 1984. collector id: US-941.
Annual. Primitiv-cv. Seed.
- PI 536117 donor id: US 942. origin: Brazil. local name: Ipeal-32.
collected: February 09, 1984. collector id: US-942.
Annual. Primitiv-cv. Seed.
- PI 536118 donor id: US 943. origin: Brazil. local name: Ipeal-34.
collected: February 09, 1984. collector id: US-943.
Annual. Primitiv-cv. Seed.
- PI 536119 donor id: US 944. origin: Brazil. local name:
Ipeal-34-48. collected: February 09, 1984. collector
id: US-944. Annual. Primitiv-cv. Seed.
- PI 536120 donor id: US 945. origin: Brazil. local name: Ipeal-35.
collected: February 09, 1984. collector id: US-945.
Annual. Primitiv-cv. Seed.
- PI 536121 donor id: US 946. origin: Brazil. local name: Ipeal-40.
collected: February 09, 1984. collector id: US-946.
Annual. Primitiv-cv. Seed.
- PI 536122 donor id: US 947. origin: Brazil. local name: Ipeal-42.
collected: February 09, 1984. collector id: US-947.
Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536123 donor id: US 948. origin: Brazil. local name: Ipeal-44.
collected: February 09, 1984. collector id: US-948.
Annual. Primitiv-cv. Seed.
- PI 536124 donor id: US 949. origin: Brazil. local name: Ipeal-56.
collected: February 09, 1984. collector id: US-949.
Annual. Primitiv-cv. Seed.
- PI 536125 donor id: US 950. origin: Brazil. local name: 48-115.
collected: February 09, 1984. collector id: US-950.
Annual. Primitiv-cv. Seed.
- PI 536126 donor id: US 951. origin: Brazil. local name: V-54.
collected: February 09, 1984. collector id: US-951.
Annual. Primitiv-cv. Seed.
- PI 536127 donor id: US 952. origin: Brazil. local name: Ipeal-58.
collected: February 09, 1984. collector id: US-952.
Annual. Primitiv-cv. Seed.
- PI 536128 donor id: US 953. origin: Brazil. local name: Ipeal-59.
collected: February 09, 1984. collector id: US-953.
Annual. Primitiv-cv. Seed.
- PI 536129 donor id: US 954. origin: Brazil. local name: Ipeal-60.
collected: February 09, 1984. collector id: US-954.
Annual. Primitiv-cv. Seed.
- PI 536130 donor id: US 955. origin: Brazil. local name: Ipeal-61.
collected: February 09, 1984. collector id: US-955.
Annual. Primitiv-cv. Seed.
- PI 536131 donor id: US 956. origin: Brazil. local name: Ipeal-62.
collected: February 09, 1984. collector id: US-956.
Annual. Primitiv-cv. Seed.
- PI 536132 donor id: US 957. origin: Brazil. local name: Ipeal-65.
collected: February 09, 1984. collector id: US-957.
Annual. Primitiv-cv. Seed.
- PI 536133 donor id: US 958. origin: Brazil. local name: Ipeal-92.
collected: February 09, 1984. collector id: US-958.
Annual. Primitiv-cv. Seed.
- PI 536134 donor id: US 959. origin: Brazil. local name: Ipeal-96.
collected: February 09, 1984. collector id: US-959.
Annual. Primitiv-cv. Seed.
- PI 536135 donor id: US 960. origin: Brazil. local name: Ipeal-97.
collected: February 09, 1984. collector id: US-960.
Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536136 donor id: US 961. origin: Brazil. local name: Ipeal-101. collected: February 09, 1984. collector id: US-961. Annual. Primitiv-cv. Seed.
- PI 536137 donor id: US 962. origin: Brazil. local name: Ipeal-105. collected: February 09, 1984. collector id: US-962. Annual. Primitiv-cv. Seed.
- PI 536138 donor id: US 963. origin: Brazil. local name: V-108. collected: February 09, 1984. collector id: US-963. Annual. Primitiv-cv. Seed.
- PI 536139 donor id: US 964. origin: Brazil. local name: Ipeal-118. collected: February 09, 1984. collector id: US-964. Annual. Primitiv-cv. Seed.
- PI 536140 donor id: US 965. origin: Brazil. local name: Ipeal-132. collected: February 09, 1984. collector id: US-965. Annual. Primitiv-cv. Seed.
- PI 536141 donor id: US 966. origin: Brazil. local name: Ipeal-137. collected: February 09, 1984. collector id: US-966. Annual. Primitiv-cv. Seed.
- PI 536142 donor id: US 967. origin: Brazil. local name: Tatu #2. collected: February 09, 1984. collector id: US-967. Annual. Primitiv-cv. Seed.
- PI 536143 donor id: US 968. origin: Brazil. local name: T-AP5s (MVRP). collected: February 09, 1984. collector id: US-968. Annual. Primitiv-cv. Seed.
- PI 536144 donor id: US 969. origin: Brazil. local name: V3 (TM). collected: February 09, 1984. collector id: US-969. Annual. Primitiv-cv. Seed.
- PI 536145 donor id: US 970. origin: Brazil. local name: S2-3mM (MT). collected: February 09, 1984. collector id: US-970. Annual. Primitiv-cv. Seed.
- PI 536146 donor id: US 971. origin: Brazil. local name: V4 (MT). collected: February 09, 1984. collector id: US-971. Annual. Primitiv-cv. Seed.
- PI 536147 donor id: US 972. origin: Brazil. local name: CE. collected: February 09, 1984. collector id: US-972. Annual. Primitiv-cv. Seed.
- PI 536148 donor id: US 973. origin: Brazil. local name: Sd-HP. collected: February 09, 1984. collector id: US-973. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536149 donor id: US 974. origin: Brazil. local name: Dwarf.
collected: February 09, 1984. collector id: US-974.
Annual. Primitiv-cv. Seed.
- PI 536150 donor id: US 975. origin: Brazil. local name: HP2-3mM
(MT). collected: February 09, 1984. collector id:
US-975. Annual. Primitiv-cv. Seed.
- PI 536151 donor id: US 976. origin: Brazil. local name:
11A-55-4-37. collected: February 09, 1984. collector
id: US-976. Annual. Primitiv-cv. Seed.
- PI 536152 donor id: US 977. origin: Brazil. local name: IAL-18.
collected: February 09, 1984. collector id: US-977.
Annual. Primitiv-cv. Seed.
- PI 536153 donor id: US 978. origin: Brazil. local name: 68-11.
collected: February 09, 1984. collector id: US-978.
Annual. Primitiv-cv. Seed.
- PI 536154 donor id: US 979. origin: Brazil. local name: S4-3mM.
collected: February 09, 1984. collector id: US-979.
Annual. Primitiv-cv. Seed.
- PI 536155 donor id: US 980. origin: Brazil. local name: HP1-V3mM.
collected: February 09, 1984. collector id: US-980.
Annual. Primitiv-cv. Seed.
- PI 536156 donor id: US 981. origin: Brazil. local name: Georgia.
collected: February 09, 1984. collector id: US-981.
Annual. Primitiv-cv. Seed.
- PI 536157 donor id: US 982. origin: Brazil. collected: May 1983.
collector id: Sv-401. Annual. Landrace. Seed.
- PI 536158 donor id: US 983. origin: Brazil. collected: May 1983.
collector id: Sv-402. Annual. Landrace. Seed.
- PI 536159 donor id: US 984. origin: Brazil. collected: May 1983.
collector id: Sv-402. remarks: Purple seed from US-983
(PI 536158). Annual. Landrace. Seed.
- PI 536160 donor id: US 985. origin: Brazil. collected: May 1983.
collector id: Sv-403. Annual. Landrace. Seed.
- PI 536161 donor id: US 986. origin: Brazil. collected: May 1983.
collector id: Sv-404. Annual. Landrace. Seed.
- PI 536162 donor id: US 987. origin: Brazil. collected: May 1983.
collector id: Sv-405. Annual. Landrace. Seed.

PI 536051 to 536312-continued

- PI 536163 donor id: US 988. origin: Brazil. collected: May 1983.
collector id: Sv-406. Annual. Landrace. Seed.
- PI 536164 donor id: US 989. origin: Brazil. collected: May 1983.
collector id: Sv-428. Annual. Landrace. Seed.
- PI 536165 donor id: US 990. origin: Brazil. collected: May 1983.
collector id: Sv-429. Annual. Landrace. Seed.
- PI 536166 donor id: US 991. origin: Brazil. collected: May 1983.
collector id: Sv-449. Annual. Landrace. Seed.
- PI 536167 donor id: US 992. origin: Brazil. collected: May 1983.
collector id: Sv-451. Annual. Landrace. Seed.
- PI 536168 donor id: US 993. origin: Brazil. collected: May 1983.
collector id: Sv-469. Annual. Landrace. Seed.
- PI 536169 donor id: US 994. origin: Brazil. collected: May 1983.
collector id: Sv-470. Annual. Landrace. Seed.
- PI 536170 donor id: US 995. origin: Brazil. collected: May 1983.
collector id: Sv-471. Annual. Landrace. Seed.
- PI 536171 donor id: US 996. origin: Brazil. collected: May 1983.
collector id: Sv-472. Annual. Landrace. Seed.
- PI 536172 donor id: US 997. origin: Brazil. collected: May 1983.
collector id: Sv-473. Annual. Landrace. Seed.
- PI 536173 donor id: US 998. origin: Brazil. collected: May 1983.
collector id: Sv-474. remarks: Gaspeado seed. Annual.
Landrace. Seed.
- PI 536174 donor id: US 999. origin: Brazil. collected: May 1983.
collector id: Sv-475. Annual. Landrace. Seed.
- PI 536175 donor id: US 1000. origin: Brazil. collected: May 1983.
collector id: Sv-476. remarks: Gaspeado seed. Annual.
Landrace. Seed.
- PI 536176 donor id: US 1001. origin: Brazil. collected: May 1983.
collector id: Sv-477. remarks: Seeds striped. Annual.
Landrace. Seed.
- PI 536177 donor id: US 1002. origin: Brazil. collected: May 1983.
collector id: Sv-477. remarks: Seed mixed with US-1001
(PI 536176). Annual. Landrace. Seed.
- PI 536178 donor id: US 1003. origin: Brazil. collected: 1984.
collector id: C-6690. remarks: Seeds purple. Annual.
Landrace. Seed.

PI 536051 to 536312-continued

- PI 536179 donor id: US 1004. origin: Brazil. collected: 1983.
other id: IAN-828 83/84. remarks: Seeds Spanish type,
tan. Annual. Landrace. Seed.
- PI 536180 donor id: US 1005. origin: Brazil. collected: 1983.
other id: IAN-810 83/84. remarks: Seeds Spanish type,
tan. Annual. Landrace. Seed.
- PI 536181 donor id: US 1006. origin: Brazil. collected: 1983.
other id: IAN-Pronto 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536182 donor id: US 1007. origin: Brazil. collected: 1983.
other id: IAN-705 83/84. remarks: Seeds red. Annual.
Landrace. Seed.
- PI 536183 donor id: US 1008. origin: Brazil. collected: 1983.
other id: IAN-708 83/84. remarks: Seeds red. Annual.
Landrace. Seed.
- PI 536184 donor id: US 1009. origin: Brazil. collected: 1983.
other id: IAN-702 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536185 donor id: US 1010. origin: Brazil. collected: 1983.
other id: IAN-702 83/84. remarks: Seeds red. Mixed
collection with US-1009 (PI 536184). Annual. Landrace.
Seed.
- PI 536186 donor id: US 1011. origin: Brazil. collected: 1983.
other id: IAN-711 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536187 donor id: US 1012. origin: Brazil. collected: 1983.
other id: IAN-806. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536188 donor id: US 1013. origin: Brazil. collected: 1983.
other id: IAN-806. remarks: Seeds red. Mixed collection
with US-1012 (PI 536187). Annual. Landrace. Seed.
- PI 536189 donor id: US 1014. origin: Brazil. collected: 1983.
other id: IAN-826 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536190 donor id: US 1015. origin: Brazil. collected: 1983.
other id: IAN-704 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536191 donor id: US 1016. origin: Brazil. collected: 1983.
other id: IAN-827 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.

PI 536051 to 536312-continued

- PI 536192 donor id: US 1017. origin: Brazil. collected: 1983.
other id: IAN-870 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536193 donor id: US 1018. origin: Brazil. collected: 1983.
other id: IAN-825 83/84. remarks: Seeds red. Annual.
Landrace. Seed.
- PI 536194 donor id: US 1019. origin: Brazil. collected: 1983.
other id: 3E Filedelfia 83/84. remarks: Seeds probably
Spantex type. Annual. Landrace. Seed.
- PI 536195 donor id: US 1020. origin: Brazil. collected: 1983.
other id: IAN-717 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536196 donor id: US 1021. origin: Brazil. collected: 1983.
other id: 330 A. Azul. remarks: Seeds purple. Annual.
Landrace. Seed.
- PI 536197 donor id: US 1022. origin: Brazil. collected: 1983.
other id: IAN-813 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536198 donor id: US 1023. origin: Brazil. collected: 1983.
other id: IAN-710 83/84. remarks: Seeds red. Annual.
Landrace. Seed.
- PI 536199 donor id: US 1024. origin: Brazil. collected: 1983.
other id: IAN-712 83/84. remarks: Seeds red. Annual.
Landrace. Seed.
- PI 536200 donor id: US 1025. origin: Brazil. collected: 1983.
other id: IAN-830 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536201 donor id: US 1026. origin: Brazil. collected: 1983.
other id: IAN-830 83/84. remarks: Seeds red. Collection
mixed with US-1025 (PI 536201). Annual. Landrace.
Seed.
- PI 536202 donor id: US 1027. origin: Brazil. collected: 1983.
other id: IAN-713 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.
- PI 536203 donor id: US 1028. origin: Brazil. collected: 1983.
other id: 329 Vermelado. remarks: Seeds red. Annual.
Landrace. Seed.
- PI 536204 donor id: US 1029. origin: Brazil. collected: 1983.
other id: IAN-820 83/84. remarks: Seeds tan. Annual.
Landrace. Seed.

PI 536051 to 536312-continued

- PI 536205 donor id: US 1158-1. origin: Uruguay. collected: March 1985. collector id: US-1158-1. other id: EEA Manfredi-2771. locality: 56km from Paysandu, at Orgoroso-Pasando, "Piedras Coloradas", Dept. of Paysandu. latitude: 32 deg. 23 min. S. longitude: 57 deg. 37 min. W. elevation: 90-110m. Annual. Primitiv-cv. Seed.
- PI 536206 donor id: US 1158-2. origin: Uruguay. collected: March 1985. collector id: US-1158-2. other id: EEA Manfredi-2771. locality: 56km from Paysandu, at Orgoroso-Pasando, "Piedras Coloradas", Dept. of Paysandu. latitude: 32 deg. 23 min. S. longitude: 57 deg. 37 min. W. elevation: 90-110m. Annual. Primitiv-cv. Seed.
- PI 536207 donor id: US 1158-3. origin: Uruguay. collected: March 1985. collector id: US-1158-3. other id: EEA Manfredi-2802. locality: 56km from Paysandu, at Orgoroso-Pasando, "Piedras Coloradas", Dept. of Paysandu. latitude: 32 deg. 23 min. S. longitude: 57 deg. 37 min. W. elevation: 90-110m. Annual. Primitiv-cv. Seed.
- PI 536208 donor id: US 1159. origin: Uruguay. collected: March 1985. collector id: US-1159. other id: EEA Manfredi-2822. locality: 56km from Paysandu, at Orgoroso-Pasando, "Piedras Coloradas", Dept. of Paysandu. latitude: 32 deg. 23 min. S. longitude: 57 deg. 37 min. W. elevation: 90-110m. Annual. Primitiv-cv. Seed.
- PI 536209 donor id: US 1160-1. origin: Uruguay. collected: March 1985. collector id: US-1160-1. other id: EEA Manfredi-2772. locality: 56km from Paysandu, at Orgoroso-Pasando, "Piedra Coloradas", Dept. of Paysandu. latitude: 32 deg. 23 min. S. longitude: 57 deg. 37 min. W. elevation: 90-110m. Annual. Primitiv-cv. Seed.
- PI 536210 donor id: US 1160-2. origin: Uruguay. collected: March 1985. collector id: US-1160-2. other id: EEA Manfredi-2776. locality: 56km from Paysandu, at Orgoroso-Pasando, "Piedra Coloradas", Dept. of Paysandu. latitude: 32 deg. 23 min. S. longitude: 57 deg. 37 min. W. elevation: 90-110m. Annual. Primitiv-cv. Seed.
- PI 536211 donor id: US 1161. origin: Uruguay. collected: March 1985. collector id: US-1161. other id: EEA Manfredi-2838. locality: Lambare, Dept. of Tacuarembó. latitude: 31 deg. 43 min. S. longitude: 56 deg. 02 min. W. elevation: 135m. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536212 donor id: US 1162. origin: Uruguay. collected: March 1985. collector id: US-1162. other id: EEA Manfredi-2823. locality: Market, Tacuarembó, Dept. of Tacuarembó. latitude: 31 deg. 43 min. S. longitude: 55 deg. 58 min. W. elevation: 135m. Annual. Primitiv-cv. Seed.
- PI 536213 donor id: US 1163. origin: Uruguay. collected: March 1985. collector id: US-1163. other id: EEA Manfredi-2824. locality: Market, Tacuarembó, Dept. of Tacuarembó. latitude: 31 deg. 43 min. S. longitude: 55 deg. 58 min. W. elevation: 135m. Annual. Primitiv-cv. Seed.
- PI 536214 donor id: US 1164. origin: Uruguay. collected: March 1985. collector id: US-1164. other id: EEA Manfredi-2825. locality: 3km from the intersection Ruta 5, on Ruta 30, E of Tranqueras, Dept. of Rivera. latitude: 31 deg. 11 min. S. longitude: 55 deg. 42 min. W. elevation: 250m. Annual. Primitiv-cv. Seed.
- PI 536215 donor id: US 1165. origin: Uruguay. collected: March 1985. collector id: US-1165. other id: EEA Manfredi-2803. locality: On Ruta 30, 3km from the intersection with Ruta 5, E of Tranqueras, Dept. of Rivera. latitude: 31 deg. 11 min. S. longitude: 55 deg. 42 min. W. elevation: 250m. Annual. Primitiv-cv. Seed.
- PI 536216 donor id: US 1166. origin: Uruguay. collected: March 1985. collector id: US-1166. other id: EEA Manfredi-2839. locality: On Ruta 30, 3km from the intersection with Ruta 5, E of Tranqueras, Dept. of Rivera. latitude: 31 deg. 11 min. S. longitude: 55 deg. 42 min. W. elevation: 250m. Annual. Primitiv-cv. Seed.
- PI 536217 donor id: US 1167. origin: Uruguay. collected: March 1985. collector id: US-1167. other id: EEA Manfredi-2777. locality: On Ruta 30, 3km from the intersection with Ruta 5, E of Tranqueras, Dept. of Rivera. latitude: 31 deg. 11 min. S. longitude: 55 deg. 42 min. W. elevation: 250m. Annual. Primitiv-cv. Seed.
- PI 536218 donor id: US 1168-1. origin: Uruguay. collected: March 1985. collector id: US-1168-1. other id: EEA Manfredi-2778. locality: Pasaje La Paloma, on Ruta 27, 8km W of Vichadero, Dept. of Rivera. latitude: 31 deg. 42 min. S. longitude: 54 deg. 43 min. W. elevation: 150m. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536219 donor id: US 1168-2. origin: Uruguay. collected: March 1985. collector id: US-1168-2. other id: EEA Manfredi-2804. locality: Pasaje La Paloma, on Ruta 27, 8km W of Vichadero, Dept. of Rivera. latitude: 31 deg. 42 min. S. longitude: 54 deg. 43 min. W. elevation: 150m. Annual. Primitiv-cv. Seed.
- PI 536220 donor id: US 1169. origin: Uruguay. collected: March 1985. collector id: US-1169. other id: EEA Manfredi-2779. locality: Pasaje La Paloma, on Ruta 27, 8km W of Vichadero, Dept. of Rivera. latitude: 31 deg. 42 min. S. longitude: 54 deg. 43 min. W. elevation: 150m. Annual. Primitiv-cv. Seed.
- PI 536221 donor id: US 1170. origin: Uruguay. collected: March 1985. collector id: US-1170. other id: EEA Manfredi-2826. locality: Pasaje La Paloma, on Ruta 27, 8km W of Vichadero, Dept. of Rivera. latitude: 31 deg. 42 min. S. longitude: 54 deg. 43 min. W. elevation: 150m. Annual. Primitiv-cv. Seed.
- PI 536222 donor id: US 1171-1. origin: Uruguay. collected: March 1985. collector id: US-1171-1. other id: EEA Manfredi-2780. locality: Curticeiros, on Ruta 27, 18km SE of Rivera, Dept. of Rivera. latitude: 31 deg. 03 min. S. longitude: 55 deg. 28 min. W. elevation: 200m. Annual. Primitiv-cv. Seed.
- PI 536223 donor id: US 1171-2. origin: Uruguay. collected: March 1985. collector id: US-1171-2. other id: EEA Manfredi-2846. locality: Curticeiros, on Ruta 27, 18km SE of Rivera, Dept. of Rivera. latitude: 31 deg. 03 min. S. longitude: 55 deg. 28 min. W. elevation: 200m. Annual. Primitiv-cv. Seed.
- PI 536224 donor id: US 1172. origin: Uruguay. collected: March 1985. collector id: US-1172. other id: EEA Manfredi-2827. locality: Curticeiros, on Ruta 27, 18km SE of Rivera, Dept. of Rivera. latitude: 31 deg. 03 min. S. longitude: 55 deg. 28 min. W. elevation: 200m. Annual. Primitiv-cv. Seed.
- PI 536225 donor id: US 1173. origin: Uruguay. collected: March 1985. collector id: US-1173. other id: EEA Manfredi-2828. locality: Batovi, Dept. of Rivera, 4a. Session, on Ruta 27, 33km SE of Rivera. latitude: 31 deg. 10 min. S. longitude: 55 deg. 22 min. W. elevation: 230-240m. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536226 donor id: US 1174. origin: Uruguay. collected: March 1985. collector id: US-1174. other id: EEA Manfredi-2829. locality: Batovi, Dept. of Rivera, 4a. Session, on Ruta 27, 33km SE of Rivera. latitude: 31 deg. 10 min. S. longitude: 55 deg. 22 min. W. elevation: 230-240m. Annual. Primitiv-cv. Seed.
- PI 536227 donor id: US 1175. origin: Uruguay. collected: March 1985. collector id: US-1175. other id: EEA Manfredi-2805. locality: Batovi, Dept. of Rivera, 4a. Session, on Ruta 27, 33km SE of Rivera. latitude: 31 deg. 10 min. S. longitude: 55 deg. 22 min. W. elevation: 230-240m. Annual. Primitiv-cv. Seed.
- PI 536228 donor id: US 1176-1. origin: Uruguay. collected: March 1985. collector id: US-1176-1. other id: EEA Manfredi-2781. locality: Batovi, Dept. of Rivera, 4a. Session, on Ruta 27, 33km SE of Rivera. latitude: 31 deg. 10 min. S. longitude: 55 deg. 22 min. W. elevation: 230-240m. Annual. Primitiv-cv. Seed.
- PI 536229 donor id: US 1176-2. origin: Uruguay. collected: March 1985. collector id: US-1176-2. other id: EEA Manfredi-2806. locality: Batovi, Dept. of Rivera, 4a. Session, on Ruta 27, 33km SE of Rivera. latitude: 31 deg. 10 min. S. longitude: 55 deg. 22 min. W. elevation: 230-240m. Annual. Primitiv-cv. Seed.
- PI 536230 donor id: US 1177. origin: Uruguay. collected: March 1985. collector id: US-1177. other id: EEA Manfredi-2830. locality: Parada Medina, Dept. of Rivera, on road from Rivera to Estacion Paso de Ataque. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536231 donor id: US 1178. origin: Uruguay. collected: March 1985. collector id: US-1178. other id: EEA Manfredi-2807. locality: Parada Medina, Dept. of Rivera, on road from Rivera to Estacion Paso de Ataque. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536232 donor id: US 1179. origin: Uruguay. collected: March 1985. collector id: US-1179. other id: EEA Manfredi-2840. locality: Parada Medina, Dept. of Rivera, on road from Rivera to Estacion Paso de Ataque. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536233 donor id: US 1180. origin: Uruguay. collected: March 1985. collector id: US-1180. other id: EEA Manfredi-2782. locality: On Ruta 5, Km 483, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536234 donor id: US 1181-2. origin: Uruguay. collected: March 1985. collector id: US-1181-2. other id: EEA Manfredi-2808. locality: On Ruta 5, Km 483, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536235 donor id: US 1182. origin: Uruguay. collected: March 1985. collector id: US-1182. other id: EEA Manfredi-2820. locality: On Ruta 5, Km 483, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536236 donor id: US 1183-1. origin: Uruguay. collected: March 1985. collector id: US-1183-1. other id: EEA Manfredi-2773-1. locality: On Ruta 5, Km 483, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536237 donor id: US 1183-2. origin: Uruguay. collected: March 1985. collector id: US-1183-2. other id: EEA Manfredi-2773-2. locality: On Ruta 5, Km 483, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536238 donor id: US 1183-3. origin: Uruguay. collected: March 1985. collector id: US-1183-3. other id: EEA Manfredi-2809. locality: On Ruta 5, Km 483, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536239 donor id: US 1185. origin: Uruguay. collected: March 1985. collector id: US-1185. other id: EEA Manfredi-2831. locality: Estacion Ataque, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536240 donor id: US 1185-1. origin: Uruguay. collected: March 1985. collector id: US-1185-1. other id: EEA Manfredi-2841. locality: Estacion Ataque, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536241 donor id: US 1185-2. origin: Uruguay. collected: March 1985. collector id: US-1185-2. other id: EEA Manfredi-2783. locality: Estacion Ataque, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536242 donor id: US 1186. origin: Uruguay. collected: March 1985. other id: EEA Manfredi-2821. locality: Estacion Ataque, Dept. of Rivera. elevation: 200-300m. remarks: Collected by J.R. Pietrarelly, J.C. Millot and G. Pereira. Annual. Primitiv-cv. Seed.
- PI 536243 donor id: US 1187. origin: Uruguay. collected: March 1985. collector id: US-1187. other id: EEA Manfredi-2810. locality: Estacion Paso de Ataque, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536244 donor id: US 1188. origin: Uruguay. collected: March 1985. collector id: US-1188. other id: EEA Manfredi-2784. locality: Estacion Paso de Ataque, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536245 donor id: US 1189. origin: Uruguay. collected: March 1985. collector id: US-1189. other id: EEA Manfredi-2785. locality: Estacion Paso de Ataque, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536246 donor id: US 1190. origin: Uruguay. collected: March 1985. collector id: US-1190. other id: EEA Manfredi-2811. locality: 6km from Ruta 5, W on road to Paso de Ataque, Dept. of Rivera. elevation: 200-300m. Annual. Primitiv-cv. Seed.
- PI 536247 donor id: US 1286. origin: Brazil. collected: 1985. collector id: V-8294. Annual. Primitiv-cv. Seed.
- PI 536248 donor id: US 1287. origin: Brazil. collected: 1985. collector id: V-8295. Annual. Primitiv-cv. Seed.
- PI 536249 donor id: US 1288. origin: Brazil. collected: 1985. collector id: V-8296. Annual. Primitiv-cv. Seed.
- PI 536250 donor id: US 1289. origin: Brazil. collected: 1985. collector id: V-8298. Annual. Primitiv-cv. Seed.
- PI 536251 donor id: US 1290. origin: Brazil. collected: 1985. collector id: V-8299. Annual. Primitiv-cv. Seed.
- PI 536252 donor id: US 1291. origin: Brazil. collected: March 14, 1985. collector id: VVeSv-8301. locality: Campinorte, Goias. latitude: 14 deg. 19 min. S. longitude: 49 deg. 09 min. W. elevation: 600-700m. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536253 donor id: US 1292. origin: Brazil. collected: March 20, 1985. collector id: VVeSv-8434. locality: State of Maranhao. Annual. Primitiv-cv. Seed.
- PI 536254 donor id: US 1293. origin: Brazil. collected: March 28, 1985. collector id: VVeSv-8526. locality: State of Piaui. Annual. Primitiv-cv. Seed.
- PI 536255 donor id: US 1294. origin: Brazil. collected: May 18, 1985. collector id: VSKSv-8755. locality: 20km NW of Caceres, Mato Grosso, Hwy. BR-174, at Pe de Ante. latitude: 15 deg. 56 min. S. longitude: 57 deg. 48 min. W. elevation: 150m. remarks: Collected from a farmer who had just recently (since 1981) started growing the peanut. Annual. Cultivated. Seed.
- PI 536256 donor id: US 1295. origin: Brazil. collected: May 19, 1985. collector id: VSKSv-8765. locality: State of Mato Grosso, at one of the small villages between Pontes e Lacerda and the Rondonia state line, Hwy. BR-174. Annual. Landrace. Seed.
- PI 536257 donor id: US 1296. origin: Brazil. collected: May 19, 1985. collector id: VSKSv-8766. locality: State of Mato Grosso, at one of the small villages between Pontes e Lacerda and the Rondonia state line, Hwy. BR-174. remarks: Mixed collection with VSKSv-8765 (PI 536256). Annual. Landrace. Seed.
- PI 536258 donor id: US 1297. origin: Brazil. collected: May 20, 1985. collector id: VSKSv-8800. locality: Farmer, vegetable market, Vilhena, Rondonia. latitude: 12 deg. 43 min. S. longitude: 60 deg. 07 min. W. elevation: 500-600m. remarks: Seeds tan. Annual. Landrace. Seed.
- PI 536259 donor id: US 1298. origin: Brazil. collected: May 20, 1985. collector id: VSKSv-8801. locality: Farmer, vegetable market, Vilhena, Rondonia. latitude: 12 deg. 43 min. S. longitude: 60 deg. 07 min. W. elevation: 500-600m. remarks: Seeds red. Mixed collection with VSKSv-8800 (PI 536258). Annual. Landrace. Seed.
- PI 536260 donor id: US 1299. origin: Brazil. collected: May 23, 1985. collector id: VSKSv-8852. locality: Posto Indigena LINHA 14, near Riozinho, Rondonia. 21.3km E from Hwy. BR-364, then 28.9km N from Riozinho. latitude: 11 deg. 14 min. S. longitude: 61 deg. 15 min. W. elevation: 200-300m. remarks: Collected from Indian Tribe Surui's field of slash and burn plantings of corn, rice, beans, and peanuts. Called the peanut Macap. "Macap was born when the Indian was born.". Annual. Landrace. Seed.

PI 536051 to 536312-continued

- PI 536261 donor id: US 1300. origin: Brazil. collected: May 24, 1985. collector id: VSKSv-8858. locality: Roadside vendor, Ji-Parana, Rondonio, on Hwy. BR-364. latitude: 10 deg. 55 min. S. longitude: 61 deg. 56 min. W. elevation: 150-200m. Annual. Landrace. Seed.
- PI 536262 donor id: US 1301. origin: Brazil. collected: May 26, 1985. collector id: VSKSv-8867. locality: Roadside vendor, Jaru, Rondonia, Hwy BR-364. latitude: 10 deg. 47 min. S. longitude: 62 deg. 27 min. W. elevation: 200-300m. remarks: Variety originally came from Rio Grande do Sul, Brazil. Seeds large, tan. Annual. Landrace. Seed.
- PI 536263 donor id: US 1302. origin: Brazil. collected: May 27, 1985. collector id: VSKSv-8872. locality: Faz. Estrela do Guapore, Mato Grosso, (145km N of Pontes e Lacerda on BR-174, then 29.7km W). latitude: 14 deg. 14 min. S. longitude: 59 deg. 51 min. W. elevation: 250-300m. remarks: Collected from a primitive Indian tribe at P.I. ALANTESU. Seeds large, red. Annual. Landrace. Seed.
- PI 536264 donor id: US 1303. origin: Brazil. collected: May 28, 1985. collector id: VSKSv-8899. locality: Farmer, Pto. Esperidiao, Mato Grosso, NW from Pto. Esperidiao on Hwy. BR-070 for 7km, then WSW 43km, at Resturante Villa Isabel. latitude: 16 deg. 05 min. S. longitude: 58 deg. 50 min. W. elevation: 200-300m. remarks: Seeds red. Annual. Landrace. Seed.
- PI 536265 donor id: US 1304. origin: Brazil. collected: May 29, 1985. collector id: VSKSv-8908. locality: Farmer, 15.5km E of Pto. Esperidiao, Mato Grosso, at Km 85.5 at Hwy. BR-070 W of Ca'ceres. latitude: 15 deg. 49 min. S. longitude: 58 deg. 20 min. W. elevation: 150-200m. remarks: Originally from Sao Paulo, Brazil, 22 years ago. Seeds small, red. Possibly Tatu type. Annual. Landrace. Seed.
- PI 536266 donor id: US 1305. origin: Brazil. collected: May 30, 1985. collector id: VSKSv-8924. locality: Farmer, street market, Caceres, Mato Grosso. latitude: 16 deg. 05 min. S. longitude: 57 deg. 41 min. W. elevation: 140m. remarks: Seeds large, tan. Possibly Guaycuru type. Annual. Landrace. Seed.
- PI 536267 donor id: US 1306. origin: Brazil. collected: May 31, 1985. collector id: VSKSv-8951. locality: Farmer's field, edge of town, Caceres, Mato Grosso. latitude: 16 deg. 05 min. S. longitude: 57 deg. 41 min. W. elevation: 140m. remarks: Seeds tan. Annual. Landrace. Seed.

PI 536051 to 536312-continued

- PI 536268 donor id: US 1307. origin: Brazil. collected: May 31, 1985. collector id: VSKSv-8952. locality: Farmer's field, edge of town, Caceres, Mato Grosso. latitude: 16 deg. 05 min. S. longitude: 57 deg. 41 min. W. elevation: 140m. Annual. Landrace. Seed.
- PI 536269 donor id: US 1308. origin: Brazil. collected: May 31, 1985. collector id: VSKSv-8953. locality: Farmer's field, edge of town, Caceres, Mato Grosso. latitude: 16 deg. 05 min. S. longitude: 57 deg. 41 min. W. elevation: 140m. remarks: Seeds large, red. Said to come from near Casal Vasco. Annual. Landrace. Seed.
- PI 536270 donor id: US 1309. origin: Brazil. collected: May 31, 1985. collector id: VSKSv-8954. locality: Farmer's field, grounds of "new airport", Caceres, Mato Grosso. latitude: 16 deg. 05 min. S. longitude: 57 deg. 41 min. W. elevation: 140m. remarks: Seeds tan. Annual. Landrace. Seed.
- PI 536271 donor id: US 1310. origin: Brazil. collected: May 31, 1985. collector id: VSKSv-8960. locality: Farmer's field, edge of town, Caceres, Mato Grosso. latitude: 16 deg. 05 min. S. longitude: 57 deg. 41 min. W. elevation: 140m. Annual. Landrace. Seed.
- PI 536272 donor id: US 1311. origin: Brazil. collected: May 31, 1985. collector id: VSKSv-8973. locality: Farmer's field, edge of town, Caceres, Mato Grosso. latitude: 16 deg. 05 min. S. longitude: 57 deg. 41 min. W. elevation: 140m. Annual. Landrace. Seed.
- PI 536273 donor id: US 1312. origin: Brazil. collected: June 02, 1985. collector id: VSKSv-8985. locality: Market, Barra do Bugres, Mato Grosso. latitude: 15 deg. 04 min. S. longitude: 57 deg. 11 min. W. elevation: 180m. Annual. Landrace. Seed.
- PI 536274 donor id: US 1315. origin: Brazil. local name: MACAP. collected: 1986. collector id: M-973. locality: Northwest Brazil. Annual. Landrace. Seed.
- PI 536275 donor id: US 1316. origin: Brazil. local name: MACAP-Tribo Surui-Ro. collected: 1986. collector id: M-975. locality: Northwest Brazil. Annual. Landrace. Seed.
- PI 536276 donor id: US 1317. origin: Brazil. local name: Amendoim gigante. collected: 1986. collector id: M-979. locality: Northwest Brazil. remarks: Seeds red. Annual. Landrace. Seed.

PI 536051 to 536312-continued

- PI 536277 donor id: US 1318. origin: Brazil. local name: MACAP. collected: 1986. collector id: M-983. locality: Northwest Brazil. remarks: Posts indigeno Sete de Setembro. Annual. Landrace. Seed.
- PI 536278 donor id: US 1319. origin: Brazil. local name: MACAP. collected: 1986. collector id: M-987. locality: Northwest Brazil. Annual. Landrace. Seed.
- PI 536279 donor id: US 1320. origin: Brazil. local name: Amendoim cavalo. collected: 1986. collector id: M-996. locality: Ouro Preto, Rondonia. latitude: 10 deg. 44 min. S. longitude: 62 deg. 12 min. W. elevation: 200-300m. Annual. Landrace. Seed.
- PI 536280 donor id: US 1321. origin: Brazil. collected: 1986. collector id: M-1028. locality: Northwest Brazil. Annual. Landrace. Seed.
- PI 536281 donor id: US 1322. origin: Brazil. collected: 1986. collector id: M-1028. locality: Northwest Brazil. remarks: Seeds red and white. Annual. Landrace. Seed.
- PI 536282 donor id: US 1323. origin: Brazil. collected: 1986. collector id: M-1028. locality: Northwest Brazil. remarks: Seeds white. Annual. Landrace. Seed.
- PI 536283 donor id: US 1324. origin: Brazil. collected: 1986. collector id: M-1029. locality: Posto Indigna Guapore, near Guajara Mirim, Rondonia. Annual. Landrace. Seed.
- PI 536284 donor id: US 1325. origin: Brazil. collected: 1986. collector id: M-1030. locality: Northwest Brazil. remarks: P.I. Tribe: Jiutadare, Tribe Makura. Annual. Landrace. Seed.
- PI 536285 donor id: US 1326. origin: Brazil. collected: 1986. collector id: M-1031. locality: Northwest Brazil. Annual. Landrace. Seed.
- PI 536286 donor id: US 1327. origin: Brazil. collected: 1986. collector id: M-979. locality: Northwest Brazil. remarks: Mixed collection. Annual. Landrace. Seed.
- PI 536287 donor id: US 1330. origin: Uruguay. collected: 1984. collector id: US 1330. other id: FT-84002. locality: Tacuarembó, Dept. of Tacuarembó. latitude: 31 deg. 43 min. S. longitude: 55 deg. 58 min. W. elevation: 135m. remarks: Seeds large, tan. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536288 donor id: US 1331. origin: Uruguay. collected: 1984. collector id: US 1331. other id: FT-84003. locality: Tacuarembó, Dept. of Tacuarembó. latitude: 31 deg. 43 min. S. longitude: 55 deg. 58 min. W. elevation: 135m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536289 donor id: US 1332. origin: Uruguay. collected: 1984. collector id: US 1332. other id: FT-84004. locality: Tacuarembó, Dept. of Tacuarembó. latitude: 31 deg. 43 min. S. longitude: 55 deg. 58 min. W. elevation: 135m. remarks: Seeds small, red. Annual. Primitiv-cv. Seed.
- PI 536290 donor id: US 1333. origin: Uruguay. collected: 1984. collector id: US 1333. other id: FT-84009. locality: Tacuarembó, Dept. of Tacuarembó. latitude: 31 deg. 43 min. S. longitude: 55 deg. 58 min. W. elevation: 135m. remarks: Seeds medium, yellowish. Said to originate from Batovi, Dept. of Rivera. Annual. Primitiv-cv. Seed.
- PI 536291 donor id: US 1334. origin: Uruguay. collected: 1984. collector id: US 1334. other id: FT-84010. locality: Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S. longitude: 56 deg. 29 min. W. elevation: 120m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536292 donor id: US 1335. origin: Uruguay. collected: 1984. collector id: US 1335. other id: FT-84015. locality: Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S. longitude: 56 deg. 29 min. W. elevation: 120m. remarks: Seeds medium, red. Annual. Primitiv-cv. Seed.
- PI 536293 donor id: US 1336. origin: Uruguay. collected: 1984. collector id: US 1336. other id: FT-84016. locality: Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S. longitude: 56 deg. 29 min. W. elevation: 120m. remarks: Seeds medium, red. Annual. Primitiv-cv. Seed.
- PI 536294 donor id: US 1337. origin: Uruguay. collected: 1984. collector id: US 1337. other id: FT-84019. locality: Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S. longitude: 56 deg. 29 min. W. elevation: 120m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536295 donor id: US 1338. origin: Uruguay. collected: 1984. collector id: US 1338. other id: FT-84020. locality: Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S. longitude: 56 deg. 29 min. W. elevation: 120m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536296 donor id: US 1339. origin: Uruguay. collected: 1984.
collector id: US 1339. other id: FT-84021. locality:
Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S.
longitude: 56 deg. 29 min. W. elevation: 120m. remarks:
Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536297 donor id: US 1340. origin: Uruguay. collected: 1984.
collector id: US 1340. other id: FT-84027. locality:
Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S.
longitude: 56 deg. 29 min. W. elevation: 120m. remarks:
Seeds large, tan. Annual. Primitiv-cv. Seed.
- PI 536298 donor id: US 1341. origin: Uruguay. collected: 1984.
collector id: US 1341. other id: FT-84032. locality:
Colonia, Dept. of Colonia. latitude: 34 deg. 28 min. S.
longitude: 57 deg. 50 min. W. elevation: 00-50m.
remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536299 donor id: US 1342. origin: Uruguay. collected: 1984.
collector id: US 1342. other id: FT-84034. locality:
Colonia, Dept. of Colonia. latitude: 34 deg. 28 min. S.
longitude: 57 deg. 50 min. W. elevation: 00-50m.
remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536300 donor id: US 1343. origin: Uruguay. collected: 1984.
collector id: US 1343. other id: FT-84037. locality:
Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S.
longitude: 56 deg. 29 min. W. elevation: 120m. remarks:
Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536301 donor id: US 1344. origin: Uruguay. collected: 1984.
collector id: US 1344. other id: FT-84038. locality:
Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S.
longitude: 56 deg. 29 min. W. elevation: 120m. remarks:
Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536302 donor id: US 1345. origin: Uruguay. collected: 1984.
collector id: US 1345. other id: FT-84039. locality:
Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S.
longitude: 56 deg. 29 min. W. elevation: 120m. remarks:
Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536303 donor id: US 1346. origin: Uruguay. collected: 1984.
collector id: US 1346. other id: FT-84040. locality:
Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S.
longitude: 56 deg. 29 min. W. elevation: 120m. remarks:
Seeds large, red. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

- PI 536304 donor id: US 1347. origin: Uruguay. collected: 1984. collector id: US 1347. other id: FT-84041. locality: Artigas, Dept. of Artigas. latitude: 30 deg. 25 min. S. longitude: 56 deg. 29 min. W. elevation: 120m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536305 donor id: US 1348. origin: Uruguay. local name: Guaycuru. collected: 1984. collector id: US 1348. other id: FT-85005. locality: Tacuarembó, Dept. of Tacuarembó. latitude: 31 deg. 43 min. S. longitude: 55 deg. 58 min. W. elevation: 135m. remarks: Seeds large, tan. Annual. Primitiv-cv. Seed.
- PI 536306 donor id: US 1349. origin: Uruguay. collected: 1984. collector id: US 1349. other id: FT-85142. locality: Rivera, Dept. of Rivera. latitude: 30 deg. 55 min. S. longitude: 55 deg. 32 min. W. elevation: 275m. remarks: Seeds medium, red. Annual. Primitiv-cv. Seed.
- PI 536307 donor id: US 1350. origin: Uruguay. collected: 1984. collector id: US 1350. other id: FT-85233. locality: Commercial market, Montevideo, Dept. of Canelones. latitude: 34 deg. 50 min. S. longitude: 56 deg. 13 min. W. elevation: 00-50m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536308 donor id: US 1351. origin: Uruguay. collected: 1984. collector id: US 1351. other id: FT-85235. locality: Colonia, Dept. of Colonia. latitude: 34 deg. 28 min. S. longitude: 57 deg. 50 min. W. elevation: 00-50m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536309 donor id: US 1352. origin: Uruguay. collected: 1984. collector id: US 1352. other id: FT-85236. locality: Colonia, Dept. of Colonia. latitude: 34 deg. 28 min. S. longitude: 57 deg. 50 min. W. elevation: 00-50m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536310 donor id: US 1353. origin: Uruguay. collected: 1984. collector id: US 1353. other id: FT-85237. locality: Commercial market, Montevideo, Dept. of Canelones. latitude: 34 deg. 50 min. S. longitude: 56 deg. 13 min. W. elevation: 00-50m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.
- PI 536311 donor id: US 1354. origin: Uruguay. collected: 1984. collector id: US 1354. other id: FT-85242. locality: Paysandu, Dept. of Paysandu. latitude: 32 deg. 19 min. S. longitude: 58 deg. 04 min. W. elevation: 50-60m. remarks: Seeds large, red. Annual. Primitiv-cv. Seed.

PI 536051 to 536312-continued

PI 536312 donor id: US 1355. origin: Uruguay. collected: 1984.
collector id: US 1355. other id: FT-85293. locality:
Commercial market, Montevideo, Dept. of Canelones.
latitude: 34 deg. 50 min. S. longitude: 56 deg. 13 min.
W. elevation: 00-50m. remarks: Seeds large, red.
Annual. Primitiv-cv. Seed.

PI 536313 to 536428. Pennisetum glaucum (L.) R. Br. POACEAE Pearl
millet

Donated by: Zongo, J., Institut Supérieur Polytechnique, University
of Ouagadougou, B.P. 702, Ouagadougou, Burkina Faso. remarks:
Received through IBPGR, Rome, Italy. Received February 17, 1987.

PI 536313 donor id: 110. origin: Burkina Faso. local name:
Kazoua. collected: October 1985. locality: Farmland,
Tougan, Sourou Province. latitude: 13 deg. 05 min. N.
longitude: 3 deg. 04 min. W. elevation: 305m.
restricted: QUAR. remarks: Sample size 500g. Primitive
Cultivar. Seed.

PI 536314 donor id: 111. origin: Burkina Faso. local name:
Nyongonni. collected: October 1985. locality: Farmland,
Tougan, Sourou Province. latitude: 13 deg. 05 min. N.
longitude: 3 deg. 04 min. W. elevation: 305m.
restricted: QUAR. remarks: Sample size 500g. Primitive
Cultivar. Seed.

PI 536315 donor id: 112. origin: Burkina Faso. local name:
Kazoua. collected: October 1985. locality: Farmland,
Tougan, Sourou Province. latitude: 13 deg. 05 min. N.
longitude: 3 deg. 04 min. W. elevation: 305m.
restricted: QUAR. remarks: Sample size 500g. Primitive
Cultivar. Seed.

PI 536316 donor id: 113. origin: Burkina Faso. local name:
Moguiona. collected: October 1985. locality: Farmland,
Dedougou, Nouhoun Province. latitude: 12 deg. 28 min. N.
longitude: 3 deg. 28 min. W. elevation: 308m.
restricted: QUAR. remarks: Sample size 500g. Primitive
Cultivar. Seed.

PI 536317 donor id: 114. origin: Burkina Faso. collected: October
1985. locality: Farmland, Tougan, Sourou Province.
latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min.
W. elevation: 305m. restricted: QUAR. remarks:
Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536318 donor id: 115. origin: Burkina Faso. local name: Seiguin gno. collected: October 1985. locality: Farmland, Sopenzo, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 04 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536319 donor id: 116. origin: Burkina Faso. local name: Sangnon. collected: October 1985. locality: Farmland, Dedougou, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536320 donor id: 117. origin: Burkina Faso. local name: Kazoua. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536321 donor id: 118. origin: Burkina Faso. local name: Dianra. collected: October 1985. locality: Farmland, Sopenzo, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 04 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536322 donor id: 119. origin: Burkina Faso. local name: Sajoon teriyani. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536323 donor id: 120. origin: Burkina Faso. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536324 donor id: 121. origin: Burkina Faso. local name: Poin Vouka. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536325 donor id: 122. origin: Burkina Faso. local name: Sansa. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536326 donor id: 123. origin: Burkina Faso. local name: Sagno. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536327 donor id: 124. origin: Burkina Faso. local name: Ta. collected: October 1985. locality: Farmland, Sopenzo, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 04 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536328 donor id: 125. origin: Burkina Faso. local name: Gninani. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536329 donor id: 126. origin: Burkina Faso. local name: Sognongoue. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536330 donor id: 127. origin: Burkina Faso. local name: Kazoui. collected: October 1985. locality: Farmland, Kombissiri, Bazega Province. latitude: 1 deg. 20 min. N. longitude: 1 deg. 02 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536331 donor id: 128. origin: Burkina Faso. local name: Kazoui peelga. collected: October 1985. locality: Farmland, Sapone, Bazega Province. latitude: 12 deg. 03 min. N. longitude: 1 deg. 36 min. W. elevation: 356m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536332 donor id: 129. origin: Burkina Faso. local name: Kapelga. collected: October 1985. locality: Farmland, Tanghin-Dassouri, Bazega Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536333 donor id: 130. origin: Burkina Faso. local name: Ka-Mingu. collected: October 1985. locality: Farmland, Komsilga, Bazega Province. latitude: 12 deg. 04 min. N. longitude: 1 deg. 20 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536334 donor id: 131. origin: Burkina Faso. local name: Kamiogo (Ka-Zui). collected: October 1985. locality: Farmland, Tanghin Dassouri, Bazega Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536335 donor id: 132. origin: Burkina Faso. local name: Kazoui. collected: October 1985. locality: Farmland, Tanghin-Dassouri, Bazega Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536336 donor id: 133. origin: Burkina Faso. local name: Yoonde. collected: October 1985. locality: Farmland, Ziniare, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536337 donor id: 134. origin: Burkina Faso. local name: Kapelga. collected: October 1985. locality: Farmland, Ziniare, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536338 donor id: 135. origin: Burkina Faso. local name: Kasablega. collected: October 1985. locality: Farmland, Jpelie, Bazega Province. latitude: 12 deg. 03 min. N. longitude: 1 deg. 36 min. W. elevation: 356m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536339 donor id: 136. origin: Burkina Faso. local name: Kazoe sabliga. collected: October 1985. locality: Farmland, Niou, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536340 donor id: 137. origin: Burkina Faso. local name: Kazuimiiga. collected: October 1985. locality: Farmland, Kolganguese, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536341 donor id: 138. origin: Burkina Faso. local name: Ka-Zui Pepega. collected: October 1985. locality: Farmland, Doulogou, Bazega Province. latitude: 12 deg. 04 min. N. longitude: 2 deg. 22 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536342 donor id: 139. origin: Burkina Faso. local name: Kazui miigou. collected: October 1985. locality: Farmland, Pabre, Oubritenga Province. latitude: 12 deg. 31 min. N. longitude: 1 deg. 34 min. W. elevation: 295m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536343 donor id: 140. origin: Burkina Faso. local name: Ki. collected: October 1985. locality: Farmland, Tanghin Dassouri, Bazega Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536344 donor id: 141. origin: Burkina Faso. local name: Ki. collected: October 1985. locality: Farmland, Tuili, Bazega Province. latitude: 12 deg. 04 min. N. longitude: 01 deg. 20 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536345 donor id: 142. origin: Burkina Faso. local name: Kamugou. collected: October 1985. locality: Farmland, Pabie, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536346 donor id: 143. origin: Burkina Faso. local name: Kapelega. collected: October 1985. locality: Farmland, Sabtinga, Kadiogo Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536347 donor id: 144. origin: Burkina Faso. local name: Petit mil. collected: October 1985. locality: Farmland, Balkoui, Kadiogo Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536348 donor id: 145. origin: Burkina Faso. local name: Kapelega. collected: October 1985. locality: Farmland, Goupana, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536349 donor id: 146. origin: Burkina Faso. local name: Minpona. collected: October 1985. locality: Farmland, Po, Naouri Province. latitude: 11 deg. 10 min. N. longitude: 1 deg. 09 min. W. elevation: 326m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536350 donor id: 147. origin: Burkina Faso. local name: Kazui Saalga. collected: October 1985. locality: Farmland, Doure, Bazega Province. latitude: 12 deg. 04 min. N. longitude: 1 deg. 20 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536351 donor id: 148. origin: Burkina Faso. local name: Kiou Kazoui. collected: October 1985. locality: Farmland, Kombissiri, Bazega Province. latitude: 12 deg. 04 min. N. longitude: 1 deg. 20 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536352 donor id: 149. origin: Burkina Faso. local name: Kipetega. collected: October 1985. locality: Farmland, Ziniare, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536353 donor id: 150. origin: Burkina Faso. local name: Ki, Kamiougou, Kiremaque. collected: October 1985. locality: Farmland, Kombissiri, Bazega Province. latitude: 12 deg. 04 min. N. longitude: 01 deg. 20 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536354 donor id: 151. origin: Burkina Faso. local name: Mingouksula. collected: October 1985. locality: Farmland, Po, Naouri Province. latitude: 11 deg. 10 min. N. longitude: 1 deg. 09 min. W. elevation: 326m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536355 donor id: 152. origin: Burkina Faso. local name: Bologo. collected: October 1985. locality: Farmland, Dapelogo, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 01 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536356 donor id: 153. origin: Burkina Faso. local name: Kasablega. collected: October 1985. locality: Farmland, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536357 donor id: 154. origin: Burkina Faso. local name: Kassabliga. collected: October 1985. locality: Farmland, Bousse, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536358 donor id: 155. origin: Burkina Faso. local name: Mandjolo-yi. collected: October 1985. locality: Farmland, Po, Naouri Province. latitude: 11 deg. 10 min. N. longitude: 1 deg. 09 min. W. elevation: 326m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536359 donor id: 156. origin: Burkina Faso. local name: Kazui. collected: October 1985. locality: Farmland, Dapelogo, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536360 donor id: 157. origin: Burkina Faso. local name: Kiara. collected: October 1985. locality: Farmland, Po, Naouri Province. latitude: 11 deg. 10 min. N. longitude: 1 deg. 09 min. W. elevation: 326m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536361 donor id: 158. origin: Burkina Faso. local name: Mena. collected: October 1985. locality: Farmland, Po, Naouri Province. latitude: 11 deg. 10 min. N. longitude: 1 deg. 09 min. W. elevation: 326m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536362 donor id: 159. origin: Burkina Faso. local name: Meezona. collected: October 1985. locality: Farmland, Po, Naouri Province. latitude: 11 deg. 10 min. N. longitude: 1 deg. 09 min. W. elevation: 326m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536363 donor id: 160. origin: Burkina Faso. local name: Kassabliga. collected: October 1985. locality: Farmland, Nobere, Bazega Province. latitude: 12 deg. 04 min. N. longitude: 1 deg. 20 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536364 donor id: 161. origin: Burkina Faso. local name: Kirimague. collected: October 1985. locality: Farmland, Kaibo, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536365 donor id: 162. origin: Burkina Faso. local name: Ki. collected: October 1985. locality: Farmland, Manga, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536366 donor id: 163. origin: Burkina Faso. local name: Kirimague. collected: October 1985. locality: Farmland, Basgana, Bazego Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536367 donor id: 164. origin: Burkina Faso. local name: Kiring-Maaga. collected: October 1985. locality: Farmland, Koulipepe Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536368 donor id: 165. origin: Burkina Faso. local name: Kipelega. collected: October 1985. locality: Farmland, Nobili, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536369 donor id: 166. origin: Burkina Faso. local name: Kapeelga. collected: October 1985. locality: Farmland, Nobere, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536370 donor id: 167. origin: Burkina Faso. local name: Kazui. collected: October 1985. locality: Farmland, Kaibo Nord, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536371 donor id: 168. origin: Burkina Faso. local name: Kiri maage. collected: October 1985. locality: Farmland, Manga, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536372 donor id: 169. origin: Burkina Faso. local name: Kiir maangue. collected: October 1985. locality: Farmland, Boura, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536373 donor id: 170. origin: Burkina Faso. local name: Ka Kobnse. collected: October 1985. locality: Farmland, Koulipele, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536374 donor id: 171. origin: Burkina Faso. local name: Ki. collected: October 1985. locality: Farmland, Passintinga, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536375 donor id: 172. origin: Burkina Faso. local name: Kimmangue. collected: October 1985. locality: Farmland, Kirimangue, Bazega Province. latitude: 12 deg. 04 min. N. longitude: 01 deg. 20 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536376 donor id: 173. origin: Burkina Faso. local name: Kapelega. collected: October 1985. locality: Farmland, Bilbalogo, Bazega Province. latitude: 11 deg. 40 min. N. longitude: 1 deg. 06 min. W. elevation: 286m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536377 donor id: 174. origin: Burkina Faso. local name: Nato. collected: October 1985. locality: Farmland, Linoghin, Oubritenga Province. latitude: 12 deg. 22 min. N. longitude: 1 deg. 32 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536378 donor id: 175. origin: Burkina Faso. local name: Kapelga. collected: October 1985. locality: Farmland, Boulwando, Ganzourougou Province. latitude: 12 deg. 15 min. N. longitude: 00 deg. 37 min. W. elevation: 315m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536379 donor id: 176. origin: Burkina Faso. local name: Kazoui Sabologo. collected: October 1985. locality: Farmland, Zorgho, Ganzourgou Province. latitude: 12 deg. 15 min. N. longitude: 00 deg. 37 min. W. elevation: 315m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536380 donor id: 177. origin: Burkina Faso. local name: Kazui. collected: October 1985. locality: Farmland, Zorgho, Ganzourgou Province. latitude: 12 deg. 15 min. N. longitude: 00 deg. 35 min. W. elevation: 315m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536381 donor id: 178. origin: Burkina Faso. local name: Kazui. collected: October 1985. locality: Farmland, Moytedo, Ganzourgou Province. latitude: 12 deg. 15 min. N. longitude: 00 deg. 37 min. W. elevation: 315m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536382 donor id: 179. origin: Burkina Faso. local name: Kasablaga. collected: October 1985. locality: Farmland, Koudoughin Foudo, Ganzourougou Province. latitude: 12 deg. 15 min. N. longitude: 00 deg. 37 min. W. elevation: 315m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536383 donor id: 180. origin: Burkina Faso. local name: Kazui peelga. collected: October 1985. locality: Farmland, Zorgho, Ganzourgou Province. latitude: 12 deg. 15 min. N. longitude: 00 deg. 37 min. W. elevation: 315m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536384 donor id: 181. origin: Burkina Faso. local name: Kagnon Masga. collected: October 1985. locality: Farmland, Mogtedo, Ganzourougou Province. latitude: 12 deg. 15 min. N. longitude: 00 deg. 37 min. W. elevation: 315m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536385 donor id: 182. origin: Burkina Faso. local name: Ki. collected: October 1985. locality: Farmland, Meguet, Ganzourgou Province. latitude: 12 deg. 15 min. N. longitude: 00 deg. 37 min. W. elevation: 315m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536386 donor id: 183. origin: Burkina Faso. local name: Da. collected: October 1985. locality: Farmland, Kamako, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536387 donor id: 184. origin: Burkina Faso. local name: San Kouo. collected: October 1985. locality: Farmland, Dedougou, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536388 donor id: 186. origin: Burkina Faso. local name: Mela. collected: October 1985. locality: Farmland, Tani, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536389 donor id: 185. origin: Burkina Faso. local name: Goera. collected: October 1985. locality: Farmland, Dedougou, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536390 donor id: 187. origin: Burkina Faso. local name: Sogno. collected: October 1985. locality: Farmland, Safone, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536391 donor id: 188. origin: Burkina Faso. local name: Baffe. collected: October 1985. locality: Farmland, Dedougou, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536392 donor id: 189. origin: Burkina Faso. local name: Sanko. collected: October 1985. locality: Farmland, Lah, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536393 donor id: 190. origin: Burkina Faso. local name: Sangou. collected: October 1985. locality: Farmland, Dedougou, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536394 donor id: 191. origin: Burkina Faso. local name: Goera. collected: October 1985. locality: Farmland, Somyalterrga, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536395 donor id: 192. origin: Burkina Faso. local name: Kazoui. collected: October 1985. locality: Farmland, Tougan, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536396 donor id: 193. origin: Burkina Faso. local name: Bobo. collected: October 1985. locality: Farmland, Djimbaro, Sourou Province. latitude: 13 deg. 05 min. N. longitude: 3 deg. 04 min. W. elevation: 305m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536397 donor id: 194. origin: Burkina Faso. local name: Sanko. collected: October 1985. locality: Farmland, Koungny, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536398 donor id: 195. origin: Burkina Faso. local name: Bamboun. collected: October 1985. locality: Farmland, Yahoo, Nouhoun Province. latitude: 11 deg. 44 min. N. longitude: 2 deg. 55 min. W. elevation: 264m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536399 donor id: 196. origin: Burkina Faso. local name: Sira. collected: October 1985. locality: Farmland, Boromo, Nouhoun Province. latitude: 11 deg. 44 min. N. longitude: 2 deg. 55 min. W. elevation: 264m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536400 donor id: 197. origin: Burkina Faso. local name: Baare. collected: October 1985. locality: Farmland, Dounkuy, Nouhoun Province. latitude: 12 deg. 28 min. N. longitude: 3 deg. 28 min. W. elevation: 308m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536401 donor id: 198. origin: Burkina Faso. local name: Mena. collected: October 1985. locality: Farmland, Fara, Bulkiemde Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536402 donor id: 199. origin: Burkina Faso. local name: Mena. collected: October 1985. locality: Farmland, Nabou, Bulkiemde Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536403 donor id: 200. origin: Burkina Faso. local name: Bob daise. collected: October 1985. locality: Farmland, Reo, Sanguie Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536404 donor id: 201. origin: Burkina Faso. local name: Doukooaou Mekaron. collected: October 1985. locality: Farmland, Bagnonafoum, Sanguie Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536405 donor id: 202. origin: Burkina Faso. local name: Mila. collected: October 1985. locality: Farmland, Bagnonoloumi Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536406 donor id: 203. origin: Burkina Faso. local name: Me'na. collected: October 1985. locality: Farmland, Reo, Sanguie Province. latitude: 18 deg. 16 min. N. longitude: 02 deg. 22 min. W. elevation: 850m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536407 donor id: 204. origin: Burkina Faso. local name: Kayanga. collected: October 1985. locality: Farmland, Koudougou, Bulkiemde Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536408 donor id: 205. origin: Burkina Faso. local name: Menpona. collected: October 1985. locality: Farmland, Kasso, Sissili Province. latitude: 11 deg. 06 min. N. longitude: 2 deg. 06 min. W. elevation: 347m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536409 donor id: 206. origin: Burkina Faso. local name: Kamiougou. collected: October 1985. locality: Farmland, Kindi, Bulkiemde Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536410 donor id: 207. origin: Burkina Faso. local name: Kasablaga. collected: October 1985. locality: Farmland, Poessi, Bulkiemde Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536411 donor id: 208. origin: Burkina Faso. local name: Mezonon. collected: October 1985. locality: Farmland, Sapuy, Bulkiemde Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536412 donor id: 209. origin: Burkina Faso. local name: Mipoumon. collected: October 1985. locality: Farmland, Boura, Bulkiemde Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536413 donor id: 210. origin: Burkina Faso. local name: Mena. collected: October 1985. locality: Farmland, Fara, Bulkiemde Province. latitude: 12 deg. 16 min. N. longitude: 2 deg. 22 min. W. elevation: 250m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536414 donor id: 211. origin: Burkina Faso. local name: Kazui. collected: October 1985. locality: Farmland, Kokoaga, Boulougou Province. latitude: 11 deg. 45 min. N. longitude: 00 deg. 23 min. W. elevation: 302m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536415 donor id: 212. origin: Burkina Faso. local name: Kapeelga. collected: October 1985. locality: Farmland, Tenkodogo, Boupgou Province. latitude: 11 deg. 45 min. N. longitude: 00 deg. 23 min. W. elevation: 302m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536416 donor id: 213. origin: Burkina Faso. local name: Yiro. collected: October 1985. locality: Farmland, Somblenga, Boulougou Province. latitude: 11 deg. 45 min. N. longitude: 00 deg. 23 min. W. elevation: 302m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536417 donor id: 214. origin: Burkina Faso. local name: Goudmare (on Bissa). collected: October 1985. locality: Farmland, Tenkodogo, Boulougou Province. latitude: 11 deg. 45 min. N. longitude: 00 deg. 23 min. W. elevation: 302m. restricted: QUAR. Primitive Cultivar. Seed.
- PI 536418 donor id: 215. origin: Burkina Faso. local name: Yiro. collected: October 1985. locality: Farmland, Lergho, Boulougou Province. latitude: 11 deg. 48 min. N. longitude: 00 deg. 38 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536419 donor id: 216. origin: Burkina Faso. local name: Yii. collected: October 1985. locality: Farmland, Garango, Boulougou Province. latitude: 11 deg. 48 min. N. longitude: 00 deg. 38 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536420 donor id: 217. origin: Burkina Faso. local name: Yuir. collected: October 1985. locality: Farmland, Dierma, Boulougou Province. latitude: 11 deg. 48 min. N. longitude: 00 deg. 38 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536421 donor id: 218. origin: Burkina Faso. local name: Yin Hou. collected: October 1985. locality: Farmland, Garango, Boulougou Province. latitude: 11 deg. 48 min. N. longitude: 00 deg. 38 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536422 donor id: 219. origin: Burkina Faso. local name: Ye. collected: October 1985. locality: Farmland, Tengare, Boulougou Province. latitude: 11 deg. 48 min. N. longitude: 00 deg. 38 min. W. elevation: 275m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536313 to 536428-continued

- PI 536423 donor id: 220. origin: Burkina Faso. local name: Petit mil. collected: October 1985. locality: Farmland, Zabre, Zoudweogo Province. latitude: 11 deg. 10 min. N. longitude: 00 deg. 39 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536424 donor id: 221. origin: Burkina Faso. local name: Naada. collected: October 1985. locality: Farmland, Youga, Zoudweogo Province. latitude: 11 deg. 10 min. N. longitude: 00 deg. 39 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536425 donor id: 222. origin: Burkina Faso. local name: Za. collected: October 1985. locality: Farmland, Zabre, Zoudweogo Province. latitude: 11 deg. 10 min. N. longitude: 00 deg. 39 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536426 donor id: 223. origin: Burkina Faso. local name: Za. collected: October 1985. locality: Farmland, Youga, Zoudweogo Province. latitude: 11 deg. 10 min. N. longitude: 00 deg. 39 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536427 donor id: 224. origin: Burkina Faso. local name: Nada. collected: October 1985. locality: Farmland, Zabre, Zoudweogo Province. latitude: 11 deg. 10 min. N. longitude: 00 deg. 39 min. W. elevation: 296m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.
- PI 536428 donor id: 225. origin: Burkina Faso. local name: Boulgou. collected: October 1985. locality: Farmland, Kazui, Boanghin Province. latitude: 11 deg. 32 min. N. longitude: 00 deg. 01 min. W. elevation: 285m. restricted: QUAR. remarks: Sample size 500g. Primitive Cultivar. Seed.

PI 536429 to 536431. *Oryza sativa* L. POACEAE Rice

Donated by: Kaiser, W.J., Western Regional P.I. Station, USDA-ARS, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. remarks: The F designation refers to the Rice Quarantine Identifier. Received December 13, 1988.

PI 536429 to 536431-continued

PI 536429 donor id: WKP-88-14. origin: Pakistan. origin institute: Rice Research Institute, Dokri, Sind Province. cultivar: LATEEFY. collected: October 20, 1988. other id: F 1. source: GD. restricted: QUAR. remarks: Aromatic type. Cultivar. Seed.

PI 536430 donor id: WKP-88-15. origin: Pakistan. origin institute: Rice Research Institute, Dokri, Sind Province. cultivar: DR 82. collected: October 20, 1988. other id: F 2. source: GD. restricted: QUAR. remarks: Aromatic type. Cultivar. Seed.

PI 536431 donor id: WKP-88-16. origin: Pakistan. origin institute: Rice Research Institute, Dokri, Sind Province. cultivar: DR 83. collected: October 20, 1988. other id: F 3. source: GD. restricted: QUAR. remarks: Aromatic type. Cultivar. Seed.

PI 536432 to 536434. *Abelmoschus moschatus* Medikus MALVACEAE Musk okra

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536432 donor id: KLM-1774. origin: Maldives. collected: November 9, 1986. collector: K.L. Mehra. collector id: KLM-1774. locality: Forest margin, plain level, sandy loam, good drainage, Finey, Haa Dhaalu Atoll. latitude: 6 deg. 45 min. N. longitude: 73 deg. 02 min. E. remarks: Soil pH 7.5-8.0. Plants abundant, 40 sampled. Rain-fed subsistence. Wild. Seed.

PI 536433 donor id: KLM-1887. origin: Maldives. collected: November 25, 1986. collector: K.L. Mehra. collector id: KLM-1887. locality: Below coconut plantation, slightly low lying and sunny area, plain level, loamy, highly organic soil, drainage moderate, Fonadhoo, Laamu Atoll. latitude: 1 deg. 50 min. N. longitude: 73 deg. 31 min. E. remarks: Soil pH 12.0. Fisherman village. Thirty plants sampled. Associated species: breadfruit, banana, *Indigofera* sp., pomegranate, *Alocasia*. Wild. Seed.

PI 536434 donor id: KLM-1985. origin: Maldives. collected: December 05, 1986. collector: K.L. Mehra. collector id: KLM-1985. locality: Near edges of *Colocasia* fields close to forest, undulating, stony slope, highly organic soil, poor drainage, Foah Mulaku, Gnyaviyani, Atoll. latitude: 00 deg. 18 min. S. longitude: 73 deg. 26 min. E. remarks: Non-pigmented type. Rainfed subsistence. Thirty plants sampled. Associated species: coconut, breadfruit, cassava. Wild. Seed.

PI 536435 to 536436. *Abelmoschus* sp. MALVACEAE

Donated by: Mehra, K.L., IBPGR, Rome, Italy. **remarks:** Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536435 **donor id:** KLM-1851. **origin:** Maldives. **collected:** November 21, 1986. **collector:** K.L. Mehra. **collector id:** KLM-1851. **locality:** Forest margin, sunny area, highly organic soil, poor drainage, Mulah, Meemu Atoll. **latitude:** 2 deg. 57 min. N. **longitude:** 73 deg. 34 min. E. **remarks:** Soil pH 12.0. Fisherman village with some agriculture. Rainfed subsistence. Ten plants sampled. Associated species: coconut, luffa, banana, papaya. Wild. Seed.

PI 536436 **donor id:** KLM-1935. **origin:** Maldives. **collected:** November 29, 1986. **collector:** K.L. Mehra. **collector id:** KLM-1935. **locality:** Forest margin, near swampy area, level, silt loam soil, poor drainage, Gamu, Gaafu Dhaaly Atoll. **latitude:** 00 deg. 17 min. N. **longitude:** 73 deg. 23 min. E. **remarks:** Soil pH 12.0. Rainfed subsistence. Fifty plants sampled. Associated species: Tacca, coconut. Wild. Seed.

PI 536437. *Amaranthus* sp. AMARANTHACEAE

Donated by: Mehra, K.L., IBPGR, Rome, Italy. **remarks:** Received through IBPGR, Rome Italy. Received May 11, 1988.

donor id: KLM-1863. **origin:** Maldives. **collected:** November 23, 1986. **collector:** K.L. Mehra. **collector id:** KLM-1863. **locality:** Farmland, chili fields, plain level, highly organic soil, good drainage, Isdhoo, Laamu Atoll. **latitude:** 2 deg. 07 min. N. **longitude:** 73 deg. 35 min. E. **remarks:** Soil pH 9.5. Rainfed subsistence. Seven plants sampled. Associated species: banana, coconut, papaya. Primitive Cultivar. Seed.

PI 536438 to 536444. *Amaranthus viridis* L. AMARANTHACEAE Green amaranth

Donated by: Mehra, K.L., IBPGR, Rome, Italy. **remarks:** Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536438 **donor id:** KLM-1652. **origin:** Maldives. **collected:** October 30, 1986. **collector:** K.L. Mehra. **collector id:** KLM-1652. **locality:** Backyard, plain level, sandy soil, excessive drainage, Goidhoo, Baa Atoll. **latitude:** 4 deg. 54 min. N. **longitude:** 72 deg. 58 min. E. **remarks:** Soil pH 10.5 - 13.5; at site 11.0. Rainfed subsistence. Ten plants sampled. Associated species: coconut, banana, luffa. Primitive Cultivar. Seed.

PI 536438 to 536444-continued

- PI 536439 donor id: KLM-1739. origin: Maldives. collected: November 5, 1986. collector: K.L. Mehra. collector id: KLM-1739. locality: School backyard, plain level, sandy loam soil, good drainage, Kelai, Haa Alifu Atoll. latitude: 6 deg. 58 min. N. longitude: 73 deg. 13 min. E. remarks: Seven plants sampled. Associated species: coconut, papaya, sweet potato, sorghum. Wild. Seed.
- PI 536440 donor id: KLM-1741. origin: Maldives. collected: November 5, 1986. collector: K.L. Mehra. collector id: KLM-1741. locality: Backyard, plain level, sandy loam soil, excessive drainage, Kelai, Haa Alifu Atoll. latitude: 6 deg. 58 min. N. longitude: 73 deg. 13 min. E. remarks: Five plants sampled. Associated species: coconut, papaya, sweet potato, sorghum. Primitive Cultivar. Seed.
- PI 536441 donor id: KLM-1765. origin: Maldives. collected: November 8, 1986. collector: K.L. Mehra. collector id: KLM-1765. locality: Front of a house, along road Ndi. Plain level, sandy soil, excessive drainage, Maarandhoo, Haa Alifu Atoll. latitude: 6 deg. 52 min. N. longitude: 72 deg. 58 min. E. remarks: Rainfed subsistence. Five plants sampled. Wild. Seed.
- PI 536442 donor id: KLM-1833. origin: Maldives. collected: November 20, 1986. collector: K.L. Mehra. collector id: KLM-1833. locality: Backyard, plain level, sandy loam soil, good drainage, Felidhoo, Vaavu Atoll. remarks: Rainfed subsistence. Five plants sampled. Associated species: guava, coconut, banana, breadfruit. Wild. Seed.
- PI 536443 donor id: KLM-1852. origin: Maldives. collected: November 21, 1986. collector: K.L. Mehra. collector id: KLM-1852. locality: Backyard, sunny forest margin, plain level, few stones, sandy loam soil, Mulah, Meenu Atoll. latitude: 2 deg. 57 min. N. longitude: 73 deg. 74 min. E. remarks: Soil pH 8.5. Rainfed subsistence. Five plants sampled. Associated species: coconut, banana, breadfruit, Luffa. Primitive Cultivar. Seed.
- PI 536444 donor id: KLM-1939. origin: Maldives. local name: Karaa. collected: May 29, 1986. collector: K.L. Mehra. collector id: KLM-1939. locality: Along roadside, plain level, few stones, sandy soil, soil, excessive drainage, Aaney, Aafu Adaahy Atoll. remarks: Soil pH 10.0. Rainfed subsistence. Fourteen plants sampled. Wild. Seed.

PI 536445 to 536464. *Citrullus lanatus* (Thunb.) Matsum. & Nakai
CUCURBITACEAE Watermelon

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

- PI 536445 donor id: KLM-1409. origin: Maldives. local name: Karaa. collected: May 5, 1986. collector: K.L. Mehra. collector id: KLM-1409. locality: Farmstore, growing in backyard, Dharavandhoo Island, Baa Atoll (Malosmadhulu South). latitude: 5 deg. 10 min. N. longitude: 73 deg. 06 min. E. remarks: Seeds light brown. Used as fruit. Primitive Cultivar. Seed.
- PI 536446 donor id: KLM-1410. origin: Maldives. collected: May 5, 1986. collector: K.L. Mehra. collector id: KLM-1410. locality: Farmstore, backyard cultivation, Dharavandhoo Island, Baa Atoll (Malosmadhulu South). latitude: 5 deg. 10 min. N. longitude: 73 deg. 06 min. E. remarks: Seeds black. Used as fruit. Primitive Cultivar. Seed.
- PI 536447 donor id: KLM-1422. origin: Maldives. local name: Karaa. collected: May 06, 1986. collector: K.L. Mehra. collector id: KLM-1422. locality: Farmstore, Kinohs Island, Raa Atoll (Malosmadulu North). latitude: 5 deg. 27 min. N. longitude: 73 deg. 01 min. E. remarks: Planted April/May, harvested September/October. Used as fruit. Associated species: breadfruit, pomegranate, citrus, coconut, guava. Primitive Cultivar. Seed.
- PI 536448 donor id: KLM-1431. origin: Maldives. collected: May 06, 1986. collector: K.L. Mehra. collector id: KLM-1431. locality: Farmstore, Rasmaadhoo Island, Raa Atoll (Malosmadulu North). latitude: 5 deg. 35 min. N. longitude: 73 deg. 02 min. E. elevation: 1m. remarks: Used as fruit. Primitive Cultivar. Seed.
- PI 536449 donor id: KLM-1438. origin: Maldives. collected: May 6, 1986. collector: K.L. Mehra. collector id: KLM-1438. locality: Farmstore, Maakurathu, Raa Atoll (Malosmadulu North). latitude: 5 deg. 37 min. N. longitude: 73 deg. 01 min. E. elevation: 2m. remarks: Rainfed subsistence. Planted May, harvested October/November. Used as fruit. Associated species: papaya, banana, coconut, guava, pepper. Primitive Cultivar. Seed.
- PI 536450 donor id: KLM-1459. origin: Maldives. collected: May 9, 1986. collector: K.L. Mehra. collector id: KLM-1459. locality: Farmstore, Keleii, Haa Alifu Atoll. latitude: 6 deg. 58 min. N. longitude: 73 deg. 12 min. E. remarks: Rainfed subsistence. Used as fruit. Primitive Cultivar. Seed.

PI 536445 to 536464-continued

- PI 536451 donor id: KLM-1468. origin: Maldives. collected: May 10, 1986. collector: K.L. Mehra. collector id: KLM-1468. locality: Farmstore, Muradhoo, Haa Dhaalu Atoll. latitude: 6 deg. 32 min. N. longitude: 72 deg. 53 min. E. remarks: Store sample. Primitive Cultivar. Seed.
- PI 536452 donor id: KLM-1504. origin: Maldives. collected: May 13, 1986. collector: K.L. Mehra. collector id: KLM-1504. locality: Farmstore, Kurendhoo Island, Lhaviyani Atoll. latitude: 5 deg. 19 min. N. longitude: 73 deg. 27 min. E. elevation: 10m. Cultivated. Seed.
- PI 536453 donor id: KLM-1547. origin: Maldives. collector: K.L. Mehra. collector id: KLM-1547. locality: Farmland, plain level, sandy loam soil, drainage good, Hithadhoo, Laamu Atoll (Haddunmati). latitude: 1 deg. 48 min. N. longitude: 73 deg. 24 min. E. remarks: Rainfed subsistence. Ten plants sampled (few seeds each). Used as fruit. Associated species: pumpkin, Alocasia, passion fruit, papaya. Primitive Cultivar. Seed.
- PI 536454 donor id: KLM-1583. origin: Maldives. collected: May 27, 1956. collector: K.L. Mehra. collector id: KLM-1583. locality: House store, Foah Mulah, Anyariyani Atoll. latitude: 00 deg. 18 min. S. longitude: 73 deg. 26 min. E. remarks: Disturbed forest area with grasses and Tephrosia purpurea. Forest burnt for cultivation. Cultivated. Seed.
- PI 536455 donor id: KLM-1606. origin: Maldives. collected: May 30, 1986. collector: K.L. Mehra. collector id: KLM-1606. locality: Fisherman village, Fiyoari, Gaafu Dhaalu Atoll. latitude: 00 deg. 14 min. N. longitude: 73 deg. 04 min. E. elevation: 2m. remarks: Soil pH 10.5. Associated species: breadfruit, coconut, banana, papaya, pomegranate. Cultivated. Seed.
- PI 536456 donor id: KLM-1628. origin: Maldives. collected: June 03, 1986. collector: K.L. Mehra. collector id: KLM-1628. locality: Maamigih, Alifu Atoll. latitude: 03 deg. 30 min. N. longitude: 72 deg. 49 min. E. elevation: 1m. remarks: Associated species: breadfruit, coconut, guava, papaya. Cultivated. Seed.

PI 536445 to 536464-continued

- PI 536457 donor id: KLM-1632. origin: Maldives. collected: June 04, 1986. collector: K.L. Mehra. collector id: KLM-1632. locality: Feridhoo, Alifu Atoll. latitude: 4 deg. 03 min. N. longitude: 72 deg. 43 min. E. elevation: 2m. remarks: Plants abundant. Ten fruits sampled. Associated species: coconut, guava, breadfruit. Cultivated. Seed.
- PI 536458 donor id: KLM-1638. origin: Maldives. collected: October 28, 1986. collector: K.L. Mehra. collector id: KLM-1638. locality: Farmland, plain level, excessive drainage, Feridhoo, Alifu Atoll. latitude: 4 deg. 03 min. N. longitude: 72 deg. 43 min. E. remarks: Soil pH 10.5. Ten plants sampled. Harvested May/June. Used as a fruit. Associated species: breadfruit, coconut, banana. Primitive Cultivar. Seed.
- PI 536459 donor id: KLM-1643. origin: Maldives. collected: October 28, 1986. collector: K.L. Mehra. collector id: KLM-1643. locality: Farmstore, Feridloo, Alifu Atoll. latitude: 4 deg. 03 min. N. longitude: 72 deg. 43 min. E. remarks: Associated species: breadfruit, coconut, banana. Primitive Cultivar. Seed.
- PI 536460 donor id: KLM-1645. origin: Maldives. collected: October 29, 1986. collector: K.L. Mehra. collector id: KLM-1645. locality: Farmland, plain level, sandy soil, Thoddoo, Alifu Atoll. latitude: 5 deg. 25 min. N. longitude: 72 deg. 58 min. E. remarks: Soil pH 10.5. Ten plants sampled. Used as fruit. Primitive Cultivar. Seed.
- PI 536461 donor id: KLM-1705. origin: Maldives. collected: November 1, 1986. collector: K.L. Mehra. collector id: KLM-1705. locality: Farmstore, Iguraidhoo, Rae Atoll. latitude: 5 deg. 29 min. N. longitude: 73 deg. 02 min. E. Cultivated. Seed.
- PI 536462 donor id: KLM-1866. origin: Maldives. collected: November 23, 1986. collector: K.L. Mehra. collector id: KLM-1866. locality: Farmstore, Isdhoo, Laamu Atoll. latitude: 2 deg. 07 min. N. longitude: 73 deg. 35 min. E. Cultivated. Seed.
- PI 536463 donor id: KLM-1909. origin: Maldives. collected: November 27, 1986. collector: K.L. Mehra. collector id: KLM-1909. locality: Farmstore, Maamendhoo, Aaafu Alifu Atoll. latitude: 00 deg. 43 min. N. longitude: 73 deg. 23 min. E. Cultivated. Seed.

PI 536445 to 536464-continued

PI 536464 donor id: KLM-2011. origin: Maldives. collected: December 11, 1986. collector: K.L. Mehra. collector id: KLM-2011. locality: Farmstore, Veyamandoo, Thaa Atoll. latitude: 2 deg. 11 min. N. longitude: 73 deg. 06 min. E. Cultivated. Seed.

PI 536465 to 536478. *Cucumis callosus* (Rottl.) Cogn. CUCURBITACEAE

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536465 donor id: KLM-1567. origin: Maldives. collected: May 26, 1986. collector: K.L. Mehra. collector id: KLM-1567. locality: Nearby uninhabited island, Gadhdhoo, Huradu Atoll. latitude: 00 deg. 18 min. N. longitude: 73 deg. 24 min. E. elevation: 1m. remarks: Seed spoiled. Population 20 plants. Cultivated. Seed.

PI 536466 donor id: KLM-1636. origin: Maldives. collected: June 04, 1986. collector: K.L. Mehra. collector id: KLM-1636. locality: Fendhoo, Alifu Atoll. latitude: 4 deg. 03 min. N. longitude: 72 deg. 43 min. E. elevation: 2m. Wild. Seed.

PI 536467 donor id: KLM-1641. origin: Maldives. collected: October 28, 1986. collector: K.L. Mehra. collector id: KLM-1641. locality: Near forest margin, level plain, sandy loam soil, good drainage, Fendhoo, Alifu Atoll. latitude: 4 deg. 03 min. N. longitude: 72 deg. 43 min. E. remarks: Soil pH 9.5. Rainfed subsistence. Ten plants sampled. Wild. Seed.

PI 536468 donor id: KLM-1650. origin: Maldives. collected: May 25, 1986. collector: K.L. Mehra. collector id: KLM-1650. locality: Semi-wild, outside agricultural field, plain level, sandy soil, Thoddoo, Alifu Atoll. longitude: 72 deg. 58 min. E. remarks: Soil pH 10.5. Rainfed subsistence. Thirty plants sampled. Wild. Seed.

PI 536469 donor id: KLM-1693. origin: Maldives. collected: October 31, 1986. collector: K.L. Mehra. collector id: KLM-1693. locality: Along roadside, plain level, sandy soil, excessive drainage, Kinolhas, Raa Atoll. latitude: 5 deg. 27 min. N. longitude: 73 deg. 01 min. E. remarks: Rainfed subsistence. Ten plants sampled. Wild. Seed.

PI 536465 to 536478-continued

- PI 536470 donor id: KLM-1717. origin: Maldives. collected: November 1, 1986. collector: K.L. Mehra. collector id: KLM-1717. locality: Margin of forest area, plain level, sandy soil, excessive drainage, Vgoofaaruu, Raa Atoll. latitude: 5 deg. 37 min. N. longitude: 73 deg. 01 min. E. remarks: Rainfed subsistence. Six plants sampled. Wild. Seed.
- PI 536471 donor id: KLM-1726. origin: Maldives. collected: November 2, 1986. collector: K.L. Mehra. collector id: KLM-1726. locality: Along roadside towards forest area, plain level, sandy loam soil, excessive drainage, Foakaidhoo, Shaviyani Atoll. latitude: 6 deg. 22 min. N. longitude: 73 deg. 02 min. E. remarks: Rainfed subsistence. Five plants sampled, 1 or 2 fruits per plant. Wild. Seed.
- PI 536472 donor id: KLM-1729. origin: Maldives. collected: November 3, 1986. collector: K.L. Mehra. collector id: KLM-1729. locality: Along roadside towards forest area, plain level, sandy soil, excessive drainage, Utheemu, Kaa Alifu Atoll. latitude: 6 deg. 51 min. N. longitude: 73 deg. 01 min. E. remarks: Soil pH 9.0. Rainfed subsistence. Six plants sampled, 1 fruit per plant. Fruits small. Wild. Seed.
- PI 536473 donor id: KLM-1733. origin: Maldives. collected: November 4, 1986. collector: K.L. Mehra. collector id: KLM-1733. locality: Forest margin, plain level, sandy soil, Dhidhdhoo, Haa Alifu Atoll. latitude: 6 deg. 54 min. N. longitude: 73 deg. 06 min. E. remarks: Soil pH 10.5. Rainfed subsistence. Twenty plants sampled. Associated species: breadfruit, banana, sweet potato, jujube, papaya, castor. Wild. Seed.
- PI 536474 donor id: KLM-1742. origin: Maldives. collected: November 5, 1986. collector: K.L. Mehra. collector id: KLM-1742. locality: Along roadside, plain level, few stones, sandy soil, excessive drainage, Kelai, Haa Alifu Atoll. latitude: 6 deg. 58 min. N. longitude: 73 deg. 13 min. E. remarks: Rainfed subsistence. Six plants sampled. Wild. Seed.
- PI 536475 donor id: KLM-1772. origin: Maldives. collected: November 8, 1986. collector: K.L. Mehra. collector id: KLM-1772. locality: Near roadside going towards the forest area, plain level, sandy loam soil, Phavandhoo, Haa Alifu Atoll. latitude: 7 deg. 00 min. N. longitude: 72 deg. 53 min. E. remarks: Rainfed subsistence. Two plants sampled. Plants flowering, few fruits. Wild. Seed.

PI 536465 to 536478-continued

PI 536476 donor id: KLM-1785. origin: Maldives. collected: November 10, 1986. collector: K.L. Mehra. collector id: KLM-1785. locality: Home gardens, plain level, sandy soil, excessive drainage, Kuribi, Haa Dhaalu Atoll. latitude: 6 deg. 40 min. N. longitude: 72 deg. 59 min. E. remarks: Soil pH 7.5. Five plants sampled. Associated species: breadfruit, betel nut, jujube, Annona. Wild. Seed.

PI 536477 donor id: KLM-1793. origin: Maldives. collected: November 10, 1986. collector: K.L. Mehra. collector id: KLM-1793. locality: Along roadside near abandoned house, plain level, sandy soil, excessive drainage, Muraadhoo, Haa Dhaalu Atoll. latitude: 6 deg. 32 min. N. longitude: 72 deg. 53 min. E. remarks: Ten plants sampled. Wild. Seed.

PI 536478 donor id: KLM-1819. origin: Maldives. collected: November 11, 1986. collector: K.L. Mehra. collector id: KLM-1819. locality: Near graveyard, undulating, low stoniness, silt soil, excessive drainage, Miladhoo, Noonu Atoll. latitude: 5 deg. 48 min. N. longitude: 73 deg. 21 min. E. remarks: Rainfed subsistence. Five plants sampled. Wild. Seed.

PI 536479 to 536481. Cucumis melo L. CUCURBITACEAE

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536479 donor id: KLM-1633. origin: Maldives. collected: June 4, 1986. collector: K.L. Mehra. collector id: KLM-1633. locality: Fendhoo, Alifu Atoll. latitude: 4 deg. 03 min. N. longitude: 72 deg. 43 min. E. elevation: 2m. remarks: Soil pH 7.5. Three fruits sampled. received as: C. melo var. momordicus. Cultivated. Seed.

PI 536480 donor id: KLM-1634. origin: Maldives. collected: June 4, 1986. collector: K.L. Mehra. collector id: KLM-1634. locality: Fendhoo, Alifu Atoll. latitude: 4 deg. 03 min. N. longitude: 72 deg. 43 min. E. elevation: 2m. remarks: Soil pH 8.5. Fruits with deep ridges. received as: C. melo var. momordicus. Cultivated. Seed.

PI 536479 to 536481-continued

PI 536481 donor id: KLM-1683. origin: Maldives. collected: October 31, 1986. collector: K.L. Mehra. collector id: KLM-1683. locality: Outside a farmers field, plain level, sandy loam soil, good drainage, Kinolhas, Raa Atoll. latitude: 5 deg. 27 min. N. longitude: 73 deg. 01 min. E. elevation: 2m. remarks: Rainfed subsistence. Twenty plants sampled. received as: C. melo var. momordicus. Wild. Seed.

PI 536482. Cucumis sativus L. CUCURBITACEAE Cucumber

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

donor id: KLM-1895. origin: Maldives. collected: November 25, 1986. collector: K.L. Mehra. collector id: KLM-1895. locality: Farmstore, Hithadhoo, Laamu Atoll. latitude: 1 deg. 48 min. N. longitude: 73 deg. 24 min. E. Wild. Seed.

PI 536483 to 536495. Cucurbita sp. CUCURBITACEAE Pumpkin

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536483 donor id: KLM-1412. origin: Maldives. collected: May 5, 1986. collector: K.L. Mehra. collector id: KLM-1412. locality: Farmstore, backyard cultivation, Dharavandhoo Island, Baa Atoll (Malosmadulu South). latitude: 5 deg. 10 min. N. longitude: 73 deg. 06 min. E. remarks: Used as a vegetable. Primitive Cultivar. Seed.

PI 536484 donor id: KLM-1423. origin: Maldives. local name: Baraboa. collected: May 6, 1986. collector: K.L. Mehra. collector id: KLM-1423. locality: Farmstore, Kinolhas Island, Raa Atoll (Malosmadulu North). latitude: 5 deg. 27 min. N. longitude: 73 deg. 01 min. E. remarks: Planted April/May, harvested September/October. Used as a vegetable. Associated species: breadfruit, pomegranate, citrus, coconut, guava. Primitive Cultivar. Seed.

PI 536485 donor id: KLM 1430. origin: Maldives. collected: May 6, 1986. collector: K.L. Mehra. collector id: KLM 1430. locality: Farmstore, Rasmaadhoo Island, Raa Atoll (Malosmadulu North). latitude: 5 deg. 35 min. N. longitude: 73 deg. 02 min. E. elevation: 1m. remarks: Used as a vegetable. Primitive Cultivar. Seed.

PI 536483 to 536495-continued

- PI 536486 donor id: KLM-1439. origin: Maldives. collected: May 6, 1986. collector: K.L. Mehra. collector id: KLM-1439. locality: Farmstore, Maakurathu, Raa Atoll (Molosmadulu North). latitude: 5 deg. 37 min. N. longitude: 73 deg. 01 min. E. elevation: 2m. remarks: Rainfed subsistence. Planted April/May, harvested September/November. Used as a vegetable. Associated species: breadfruit, banana, jujube, coconut, pepper. Primitive Cultivar. Seed.
- PI 536487 donor id: KLM-1462. origin: Maldives. collected: May 9, 1986. collector: K.L. Mehra. collector id: KLM-1462. locality: Farmstore, growing in nearby fields, level plains, sandy soil, good drainage, Kelai, Haa Alifu Atoll. latitude: 6 deg. 58 min. N. longitude: 73 deg. 12 min. E. elevation: 1m. remarks: Rainfed subsistence. Cultivated. Seed.
- PI 536488 donor id: KLM-1463. origin: Maldives. collected: May 9, 1986. collector: K.L. Mehra. collector id: KLM-1463. locality: Farmstore, Kelai, Haa Alifu Atoll. latitude: 6 deg. 58 min. N. longitude: 73 deg. 12 min. E. elevation: 1m. remarks: Rain-fed subsistence. Wild. Seed.
- PI 536489 donor id: KLM-1466. origin: Maldives. collected: May 10, 1986. collector: K.L. Mehra. collector id: KLM-1466. locality: Farmstore, sandy loam, level - swamp land, poor drainage, Muraadhoo, Haa Dhaalu Atoll. latitude: 6 deg. 32 min. N. longitude: 72 deg. 53 min. E. remarks: Rainfed subsistence. Used for medicinal purposes. Five plants sampled. Plants tall, leafy. Associated species: papaya, breadfruit, banana, guava. Primitive Cultivar. Seed.
- PI 536490 donor id: KLM-1474. origin: Maldives. collected: May 10, 1986. collector: K.L. Mehra. collector id: KLM-1474. locality: Farmstore, Feevah, Shaviyani Atoll. latitude: 6 deg. 21 min. N. longitude: 73 deg. 11 min. E. elevation: 20m. Cultivated. Seed.
- PI 536491 donor id: KLM-1525. origin: Maldives. collected: May 21, 1986. collector: K.L. Mehra. collector id: KLM-1525. locality: Farm, plain level, sandy soil, excessive drainage, Mulah, Meemu Atoll. latitude: 2 deg. 57 min. N. longitude: 73 deg. 34 min. E. remarks: Soil pH 11.0. Rainfed subsistence. Planted April/May, harvested June/July-Oct. Associated species: papaya, breadfruit, jujube, and coconut. Used as a vegetable. Primitive Cultivar. Seed.

PI 536483 to 536495-continued

PI 536492 donor id: KLM-1553. origin: Maldives. collected: May 25, 1986. collector: K.L. Mehra. collector id: KLM-1553. locality: Farmstore, Viligili Island, Huvaadu Atoll. latitude: 00 deg. 45 min. N. longitude: 73 deg. 23 min. E. remarks: Farmstore sample. Cultivated. Seed.

PI 536493 donor id: KLM-1584. origin: Maldives. collected: May 27, 1986. collector: K.L. Mehra. collector id: KLM-1584. locality: Disturbed forest area. Foah Mulah, Anyaviyani Atoll. latitude: 00 deg. 18 min. S. longitude: 73 deg. 26 min. E. remarks: Forest burnt for cultivation. Associated species: grasses, Tephrosia purpurea. Cultivated. Seed.

PI 536494 donor id: KLM-1689. origin: Maldives. collected: 1986. collector: K.L. Mehra. collector id: KLM-1689. locality: Farmstore. Seed.

PI 536495 donor id: KLM-1905. origin: Maldives. collected: November 27, 1986. collector: K.L. Mehra. collector id: KLM-1905. locality: Farmstore, Voliligi Island, Aaafu Alifu Atoll. latitude: 00 deg. 45 min. N. longitude: 73 deg. 23 min. E. Cultivated. Seed.

PI 536496. Cucurbita maxima Duch. CUCURBITACEAE Winter squash

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

donor id: KLM-2020. origin: Maldives. collected: December 12, 1986. collector: K.L. Mehra. collector id: KLM-2020. locality: Farmstore, Kudahervadhoo, Dhaalu Atoll. latitude: 2 deg. 41 min. N. longitude: 72 deg. 54 min. E. Cultivated. Seed.

PI 536497 to 536498. Gossypium hirsutum L. MALVACEAE Cotton

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536497 donor id: KLM-1872. origin: Maldives. collected: November 23, 1986. collector: K.L. Mehra. collector id: KLM-1872. locality: Inside vacant house foundation, plain level, sandy loam soil, good drainage, Dhabidhoo, Laamu Atoll. latitude: 2 deg. 05 min. N. longitude: 73 deg. 34 min. E. remarks: Soil pH 7.5. Rainfed subsistence. Ten plants sampled. Associated species: breadfruit, banana, mango. Wild. Seed.

PI 536497 to 536498-continued

PI 536498 donor id: KLM-2017. origin: Maldives. collected: December 12, 1986. collector: K.L. Mehra. collector id: KLM-2017. locality: Backyard, plain level, sandy soil, excessive drainage, Kudahuvadhoo, Dhaalu Atoll. latitude: 2 deg. 41 min. N. longitude: 72 deg. 54 min. E. remarks: Soil pH 10.5. Rainfed subsistence. Five plants sampled. Cultivated. Seed.

PI 536499. *Gossypium* sp. MALVACEAE

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

donor id: KLM-2026. origin: Maldives. collected: December 13, 1986. collector: K.L. Mehra. collector id: KLM-2026. locality: Backyard, plain level, sandy loam soil, good drainage, Naamigili, Alifu Atoll. latitude: 3 deg. 30 min. N. longitude: 72 deg. 49 min. E. remarks: Rainfed subsistence. Primitive Cultivar. Seed.

PI 536500 to 536509. *Lablab purpureus* (L.) Sweet FABACEAE Lablab bean

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536500 donor id: KLM-1416. origin: Maldives. local name: Maanifaa. collected: May 5, 1986. collector: K.L. Mehra. collector id: KLM-1416. locality: Plain level, sandy loam soil, good drainage, Dharavandhoo Island, Baa Atoll (Malosmadulu South). latitude: 5 deg. 10 min. N. longitude: 73 deg. 06 min. E. remarks: Plants abundant, 10 sampled. Associated species *Hibiscus* spp. and *Dendrolobium*. received as: *Lablab niger*. Wild. Seed.

PI 536501 donor id: KLM-1420. origin: Maldives. local name: Maanifaa. collected: May 06, 1986. collector: K.L. Mehra. collector id: KLM-1420. locality: Partially disturbed forest, plain level, sandy loam soil, good drainage, Kendhoo Island, Baa Atoll (Malosmadulu South). latitude: 5 deg. 18 min. N. longitude: 72 deg. 58 min. E. remarks: One plant sampled, abundant, but only one pod found. Used for medicinal purposes. Associated species: *Hibiscus*, *Pandanus*, *Indigofera*. received as: *Lablab niger*. Wild. Seed.

PI 536500 to 536509-continued

- PI 536502 donor id: KLM-1454. origin: Maldives. local name: Doohimeri. collected: May 9, 1986. collector: K.L. Mehra. collector id: KLM-1454. locality: Plain level, sandy soil, good drainage, Kelai, Haa Alifu Atoll. latitude: 6 deg. 58 min. N. longitude: 73 deg. 12 min. E. elevation: lm. remarks: Rainfed subsistence. Five plants sampled. Used as a vegetable, grain legume. Associated species: Canavalia, Hibiscus, bamboo. received as: Lablab niger. Wild. Seed.
- PI 536503 donor id: KLM-1694. origin: Maldives. collected: October 31, 1986. collector: K.L. Mehra. collector id: KLM-1694. locality: Backyard, plain level, sandy loam soil, good drainage, Kinolhas, Raa Atoll. latitude: 5 deg. 27 min. N. longitude: 73 deg. 01 min. E. remarks: Rainfed subsistence. Single plant with six pods sampled. Associated species: breadfruit, coconut, citrus, Cucumis. Primitive Cultivar. Seed.
- PI 536504 donor id: KLM-1736. origin: Maldives. collected: November 04, 1986. collector: K.L. Mehra. collector id: KLM-1736. locality: Plain level, sandy soil, Dhidhdhoo, Haa Alifu Atoll. latitude: 86 deg. 54 min. N. longitude: 73 deg. 06 min. E. remarks: Soil pH 10.0. Rainfed subsistence. Ten plants sampled. Wild. Seed.
- PI 536505 donor id: KLM-1743. origin: Maldives. collected: November 5, 1986. collector: K.L. Mehra. collector id: KLM-1743. locality: Outside a forest area, plain level, sandy soil, excessive drainage, Kelai Haa, Alifu Atoll. latitude: 6 deg. 58 min. N. longitude: 73 deg. 13 min. E. remarks: Ten plants sampled. Few pods mature. Associated species: coconut, papaya, screwpine. Wild. Seed.
- PI 536506 donor id: KLM-1766. origin: Maldives. collected: November 8, 1986. collector: K.L. Mehra. collector id: KLM-1766. locality: Backyard, plain level, sandy soil, excessive drainage, Haarandhoo, Haa Alifu Atoll. latitude: 6 deg. 52 min. N. longitude: 72 deg. 58 min. E. remarks: Rainfed subsistence. Single plant sampled. Associated species: cassava, banana, breadfruit, guava. Cultivated. Seed.
- PI 536507 donor id: KLM-1782. origin: Maldives. collected: November 9, 1986. collector: K.L. Mehra. collector id: KLM-1782. locality: Near lagoon, forest area, plain level, low stoniness, sandy soil, Thefaridhoo, Haa Dhaalu Atoll. latitude: 6 deg. 45 min. N. longitude: 72 deg. 55 min. E. remarks: Single plant sampled. Associated species: yams, screwpine, coconut. Wild. Seed.

PI 536500 to 536509-continued

PI 536508 donor id: KLM-1897. origin: Maldives. collected: November 25, 1986. collector: K.L. Mehra. collector id: KLM-1897. locality: Backyard, plain level, sandy soil, low stoniness, excessive drainage, Hithadhoo, Laamu Atoll. latitude: 1 deg. 48 min. N. longitude: 73 deg. 24 min. E. remarks: Rainfed subsistence. Eight plants sampled. Cultivated. Seed.

PI 536509 donor id: KLM-1938. origin: Maldives. collected: November 29, 1986. collector: K.L. Mehra. collector id: KLM-1938. locality: Near abandoned house, below coconut grove, plain level, sandy soil, Craney, Aaafu Dhally Atoll. latitude: 0 deg. 18 min. N. longitude: 73 deg. 24 min. E. remarks: Soil pH 10.5. Rainfed subsistence. Seven plants sampled. Associated species: coconut, breadfruit, guava. Wild. Seed.

PI 536510. *Leucaena leucocephala* (Lam.) De Wit FABACEAE Leadtree

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

donor id: KLM-1524. origin: Maldives. collected: May 21, 1986. collector: K.L. Mehra. collector id: KLM-1524. locality: Backyard, plain level, sandy soil, good drainage, Mulah, Meemu Atoll. latitude: 2 deg. 57 min. N. longitude: 73 deg. 34 min. E. remarks: Used as fuel. Five plants sampled. Associated species: banana, coconut, breadfruit, Cassia spp., Vinca. Cultivated. Seed.

PI 536511 to 536516. *Sorghum bicolor* (L.) Moench POACEAE Sorghum

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

PI 536511 donor id: KLM-1685. origin: Maldives. collected: October 31, 1986. collector: K.L. Mehra. collector id: KLM-1685. locality: Backyard, plain level, sandy soil, excessive drainage, Kinolhas, Raa Atoll. latitude: 5 deg. 27 min. N. longitude: 73 deg. 01 min. E. restricted: QUAR. remarks: Rainfed subsistence. Thirty plants sampled. Cultivated. Seed.

PI 536512 donor id: KLM-1719. origin: Maldives. collected: November 2, 1986. collector: K.L. Mehra. collector id: KLM-1719. locality: Farmstore, near sea, forest area, Foakaidhoo, Shaviyani Atoll. latitude: 6 deg. 22 min. N. longitude: 73 deg. 02 min. E. restricted: QUAR. Cultivated. Seed.

PI 536511 to 536516-continued

PI 536513 donor id: KLM-1759. origin: Maldives. collected: November 8, 1986. collector: K.L. Mehra. collector id: KLM-1759. locality: Farmstore, Baarah, Haa Alifu Atoll. latitude: 6 deg. 49 min. N. longitude: 73 deg. 12 min. E. restricted: QUAR. Cultivated. Seed.

PI 536514 donor id: KLM-1783. origin: Maldives. collected: November 9, 1986. collector: K.L. Mehra. collector id: KLM-1783. locality: Farmstore, near lagoon, forest area, Thetandhoo, Haa Dhaalu Atoll. latitude: 6 deg. 45 min. N. longitude: 72 deg. 55 min. E. restricted: QUAR. Primitive Cultivar. Seed.

PI 536515 donor id: KLM-1910. origin: Maldives. collected: November 27, 1986. collector: K.L. Mehra. collector id: KLM-1910. locality: Backyard, plain level, sandy soil, excessive drainage, Nilandhoo, Gaafu Alifu Atoll. latitude: 00 deg. 38 min. N. longitude: 73 deg. 23 min. E. restricted: QUAR. remarks: Soil pH 8.0. Rainfed subsistence. Thirty plants sampled. Associated species: sweet potato, banana, pumpkin, citrus. Primitive Cultivar. Seed.

PI 536516 donor id: KLM-1949. origin: Maldives. collected: November 30, 1986. collector: K.L. Mehra. collector id: KLM-1949. locality: Backyard, plain level, stony, sandy soil, excessive drainage, Vaadhoo, Gaafu Dhaalu Atoll. latitude: 00 deg. 14 min. N. longitude: 73 deg. 13 min. E. restricted: QUAR. remarks: Soil pH 9.5. Five plants sampled. Primitive Cultivar. Seed.

PI 536517. *Zea mays* L. POACEAE Corn

Donated by: Mehra, K.L., IBPGR, Rome, Italy. remarks: Received through IBPGR, Rome Italy. Received May 11, 1988.

donor id: KLM-1572. origin: Maldives. collected: May 26, 1986. collector: K.L. Mehra. collector id: KLM-1572. locality: Farmstore, Vaadhoo, Huvadu Atoll. latitude: 00 deg. 14 min. N. longitude: 73 deg. 13 min. E. elevation: 2m. restricted: QUAR. remarks: Rare. Cultivated. Seed.

PI 536518 to 536519. *Zea mays* L. POACEAE Corn

Donated by: Poneleit, C.G.; Evans, K.O., Dept. of Agronomy, University of Kentucky, Lexington, Kentucky, United States; and Loeffel, F.A., Agripro Ressearch Center, Brookston, Indiana, United States. remarks: Developed by the Kentucky Agricultural Experiment Station and released in 1989. Received November 15, 1989.

PI 536518 to 536519-continued

- * PI 536518 *Zea mays* L. subsp. *mays* POACEAE Corn
origin: United States. **cultivar:** KyWVS. **pedigree:** White syn. composed of 11 lines: Iowa Syn. B; USDA So. African Syn./white inbreds; Neal's Paymaster/white inbreds; Lancaster Stalk rot Cl/South Carolina Composite and 7 other lines. **other id:** GP-211. **group:** CSR-MAIZE. **locality:** Guadalajara. **remarks:** Germplasm population with resistance to Maize Dwarf Mosaic Virus and Maize Chlorotic Dwarf Virus in the southern corn belt. Maturity about AES800 to AES900. Kernels and cobs white. Endosperm white. Annual. Breeding Material. Seed.
- * PI 536519 *Zea mays* L. subsp. *mays* POACEAE Corn
origin: United States. **cultivar:** KyYVS. **pedigree:** Yellow synthetic composed of 10 lines: Iowa Synthetic B (6 lines); Iowa Synthetic A (1 line); NCIaDDC/Tampaulis 3 yellow composite (1 line); Lancaster/Mexican Synthetic yellow composite (2 lines). **other id:** GP-212. **group:** CSR-MAIZE. **locality:** Guadalajara. **remarks:** Germplasm population with resistance to Maize Dwarf Mosaic Virus and Maize Chlorotic Dwarf Virus in the southern corn belt. Maturity AES800 to AES900. Kernels yellow. Endosperm white. Cobs mostly red. Annual. Breeding Material. Seed.

PI 536520. *Zea mays* L. POACEAE Corn

Donated by: Williams, W.P.; Davis, F.M.;, Crop Science Res. Lab., USDA-ARS, P.O. Box 5248, Mississippi State, Mississippi, United States; and Windham, G.L., Crop Science Res. Lab., USDA-ARS, P.O. Box 5248, Mississippi State, Mississippi, United States. **remarks:** Developed by the USDA-ARS and the Mississippi Agricultural and Forestry Experiment Station and released September, 1988. Received November 15, 1989.

- * *Zea mays* L. subsp. *mays* POACEAE Corn
origin: United States. **pedigree:** Selfing selections from MP704/Tx601 for 8 generations. **other id:** GP-213. **group:** CSR-MAIZE. **locality:** Guadalajara. **remarks:** Germplasm with resistance to leaf feeding of the SW corn borer (*Diatraea grandiosella* and fall army worm (*Spodoptera frugiperda*)). Superior to Mp704 in pollen and seed production. Maturity AES1100. Plant height medium. Kernels yellow-orange. Exhibits resistance to the southern root-knot nematode (*Meloidogyne incognita*) and the peanut root-knot nematode (*M. arenaria*). Annual. Breeding Material. Seed.

PI 536521. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Hartwig, E.A., USDA-ARS, Delta Branch Miss. Agr. & For. Exp. Sta., P.O. Box 196, Stoneville, Mississippi, United States. **remarks:** Developed by the USDA-ARS and the Delta Branch, Mississippi Agricultural and Forestry Experiment Station and released in 1989. Received November 15, 1989.

donor id: D76-8070. **origin:** United States. **pedigree:** Advanced F5 line derived from multiple crossing of 4 lines: Hill/Sioux; FC 31745/D49-2510; Hill/PI 96983 and D49-2491/ PI 163453. **other id:** GP-121. **group:** CSR-SOYBEAN. **remarks:** Productive germplasm with high protein for use in breeding programs. Agronomically superior to introduced high-protein lines. Maturity group V. Plant growth determinate. Flowers white. Pubescence tawny. Seeds yellow with black hila. Field resistance to phytophthora rot (*Phytophthora megasperma*) and bacterial pustule (*Xanthomonas campestris*). Mean seed yield 2550 kg/ha compared to 2750 kg/ha for Forrest. Annual. Breeding Material. Seed.

PI 536522 to 536524. *Gossypium hirsutum* L. MALVACEAE Cotton

Donated by: Bridge, R.R., Delta Branch, Miss. Agric. and Forestry Expt. Sta., Stoneville, Mississippi, United States. **remarks:** Developed by the Delta Branch, Mississippi Agricultural and Forestry Experiment Station and released in 1989. Received November 15, 1989.

PI 536522 **origin:** United States. **cultivar:** DES 920. **pedigree:** DES-S11-9/Stoneville 8701, F2 with reselection in F6. **other id:** GP-418. **group:** CSR-COTTON. **remarks:** Germplasm with good yielding ability over a wide range of environments and pest resistance for development of conventional and hybrid cultivars. Plant height taller and maturity later than DES 119. Boll size, lint yield and micronaire value greater than DES 119. Resistant to fusarium wilt (*Fusarium oxysporum* f. sp. *vasinfectum*) and tarnished plant bug (*Lygus lineolaris*). Annual. Breeding Material. Seed.

PI 536523 **origin:** United States. **cultivar:** DES 926. **pedigree:** DES-S11-9/Stoneville 8701, F2 with reselection in F6. **other id:** GP-419. **group:** CSR-COTTON. **remarks:** Germplasm with good yielding ability over a wide range of environments and pest resistance for development of conventional and hybrid cultivars. Plant height taller and maturity later than DES 119. Boll size, fiber length, tensile strength and micronaire value higher than DES 119. Susceptible to Fusarium wilt (*F. oxysporum* f. sp. *vasinfectum*). Annual. Breeding Material. Seed.

PI 536522 to 536524-continued

PI 536524 **origin:** United States. **cultivar:** DES 936. **pedigree:** DES S11-9/Stoneville 8701, F2 with reselection in F6. **other id:** GP-420. **group:** CSR-COTTON. **remarks:** Germplasm with good yielding ability over a wide range of environments and pest resistance for development of conventional and hybrid cultivars. Plant height taller and maturity later than DES 119. Boll size, lint percentage and micronaire values higher than DES 119. Resistance to Fusarium wilt (*F. oxysporum* f. sp. *vasinfectum*) and tarnished plant bug (*L. lineolaris*). and Heliothis sp. Annual. Breeding Material. Seed.

PI 536525. *Gossypium hirsutum* L. MALVACEAE Cotton

Donated by: Bourland, F.M., Dept. of Agronomy, University of Arkansas, Fayetteville, Arkansas, United States; and Furbeck, S.M.; White, B.W.;, Dept. of Agronomy, Mississippi State University, Mississippi State, Mississippi, United States. **remarks:** Developed by the Delta Branch, Mississippi Agricultural and Forestry Experiment Station and released in 1989. Received November 15, 1989.

origin: United States. **cultivar:** Miscot 7853. **pedigree:** DES 24/Cascot BR-1. **other id:** GP-421. **group:** CSR-COTTON. **other id:** 7853-53-1-1. **remarks:** Germplasm with resistance to seed deterioration, good combining ability and a low imbibition rate. Plants glabrous. Plants 15% taller than DES 422. Lint yield 5% less, fiber length and fiber strength 9% less than DES 422. Resistant to all US races blight (*Xanthomonas campestris* pv *malvacearum*). Resistant to fusarium wilt (*Fusarium oxysporum*) in Regional Cotton Fusarium Wilt Test. Annual. Breeding Material. Seed.

PI 536526 to 536527. *Medicago sativa* L. FABACEAE Alfalfa

Donated by: Barnes, D.K, USDA-ARS, University of Minnesota, 411 Borlaug Hall, 1991 Buford Circle, St. Paul, Minnesota, United States. **remarks:** Developed by the USDA-ARS and the Minnesota Agricultural Experiment Station and released in February, 1989. Received November 15, 1989.

PI 536526 to 536527-continued

PI 536526 donor id: MNGRN-2. origin: United States. pedigree: Polycross from 15 parental clones: Citation (1 clone); Conquest (1 clone); G-777 (1 clone); Olympic (1 clone); Thor (2 clones); Vista (1 clone); WL219 (2 clones); WL307 (2 clones); and 520 (4 clones). other id: GP-225. group: CSR-ALFALFA. remarks: Germplasm with field tolerance to root-lesion nematode (*Pratylenchus penetrans*) and pests causing poor stand establishment and maintenance. Fall growth similar to Saranac. Moderate resistance to bacterial wilt (*Clavibacter michiganense* subsp. *insidiosum*) and Fusarium wilt (*Fusarium oxysporum* f.sp. *medicaginis*). Susceptible to *Phytophthora* root rot, anthracnose and *Verticillium* wilt. Perennial. Breeding Material. Seed.

PI 536527 donor id: MNGRN-4. origin: United States. pedigree: Polycross from 9 parental lines: A-57 (1 clone); Pacer (1 clone); Vernal (1 clone); W215 (1 clone); W219 (3 clones); 520 (1 clone); and 530 (1 clone). other id: GP-226. group: CSR-ALFALFA. remarks: Germplasm with field tolerance to root-lesion nematode (*Pratylenchus penetrans*) and pests causing poor stand establishment and maintenance. Fall growth similar to Saranac. Moderate resistance to bacterial wilt (*Clavibacter michiganense* subsp. *insidiosum*). Susceptible to Fusarium wilt, *Phytophthora* root rot, anthracnose and *Verticillium* wilt. Perennial. Breeding Material. Seed.

PI 536528. *Medicago sativa* L. FABACEAE Alfalfa

Donated by: Barnes, D.K, USDA-ARS, University of Minnesota, 411 Borlaug Hall, 1991 Buford Circle, St. Paul, Minnesota, United States. remarks: Developed by the USDA-ARS and the Minnesota Agricultural Experiment Station and released in May, 1984. Received November 15, 1989.

donor id: MNCRR-3, SAA. origin: United States. pedigree: Series of intercrosses among crown-rot free plants, winterhardy cultivars; *Phytophthora* root rot resistant plants and spotted alfalfa aphid resistant plants. other id: GP-227. group: CSR-ALFALFA. remarks: Winterhardy germplasm with resistance to crown rot. Resistant to bacterial wilt (*Clavibacter michiganense* subsp. *insidiosum*), Fusarium wilt (*Fusarium oxysporum* f. sp. *medicaginis*), and spotted alfalfa aphid (*Therioaphis maculata*). Fall growth similar to Ranger. Yield good. Maintains better stand than most other varieties in long-term yield trials. Perennial. Breeding Material. Seed.

PI 536529 to 536530. *Medicago sativa* L. FABACEAE Alfalfa

Donated by: Barnes, D.K, USDA-ARS, University of Minnesota, 411 Borlaug Hall, 1991 Buford Circle, St. Paul, Minnesota, United States. **remarks:** Developed by the USDA-ARS and the Minnesota Agricultural Experiment Station and released in February, 1989. Received November 15, 1989.

PI 536529 **donor id:** INEFFECTIVE AGATE. **origin:** United States. **pedigree:** Ineffective sel. from Agate*2/unrelated high nitrogen fixing source followed by intercrosses for syn 3. **other id:** GP-228. **group:** CSR-ALFALFA. **remarks:** An ineffectively nodulating germplasm that with its effective parental cultivar represent a near isogenic source of alfalfa available for use as non-N₂-fixing controls in field research. Nitrogen fixing of the ineffective line is only 2% or less of the effective parent. Dormant type. Perennial. Breeding Material. Seed.

PI 536530 **donor id:** INEFFECTIVE SARANAC. **origin:** United States. **pedigree:** Ineffective sel. form Saranac*2/unrelated high nitrogen fixing source followed by intercrosses for syn 3. **other id:** GP-229. **group:** CSR-ALFALFA. **remarks:** An ineffectively nodulating germplasm that with its effective parental cultivar represent a near isogenic source of alfalfa available for use as non-N₂-fixing controls in field research. Nitrogen fixing of the ineffective line is only 2% or less of the effective parent. Moderately dormant. Perennial. Breeding Material. Seed.

PI 536531 to 536539. *Medicago sativa* L. FABACEAE Alfalfa

Donated by: Melton, B., Dept. of Agronomy and Horticulture, New Mexico State University, Las Cruces, New Mexico, United States; and Currier, C; Kimmell, J; , Dept. of Agronomy and Horticulture, New Mexico State University, Las Cruces, New Mexico, United States. **remarks:** Developed by the New Mexico Agricultural Experiment Station and released in April, 1989. Received November 15, 1989.

PI 536531 **donor id:** VERY FALL DORMANT. **origin:** United States. **pedigree:** Population from composite of Spredor II, Rhizoma and Maverick. **other id:** GP-230. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, heterosis and development of a *Medicago falcata* population. Perennial. Breeding Material. Seed.

PI 536531 to 536539-continued

- PI 536532 **donor id:** LADAK. **origin:** United States. **pedigree:** Population from composite of Ladak, Ladak 65 and Norseman. **other id:** GP-231. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, and heterosis. Perennial. Breeding Material. Seed.
- PI 536533 **donor id:** MEDICAGO VARIA. **origin:** United States. **pedigree:** Population from composite of Grimm, Delta, Hardigan, Meeker Baltic, Cossack and Miechowski (PI 255178). **other id:** GP-232. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, and heterosis. Perennial. Breeding Material. Seed.
- PI 536534 **donor id:** CHILEAN. **origin:** United States. **pedigree:** Population from composite of Caliverde, Cal. Common 49, Cal. Common, Chilean Common, Chilean 21-5, and Chilean 21-5-5. **other id:** GP-233. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, and heterosis. Perennial. Breeding Material. Seed.
- PI 536535 **donor id:** PERUVIAN. **origin:** United States. **pedigree:** Population from composite of Coastal Hairy Peruvian and Hairy Peruvian. **other id:** GP-234. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, and heterosis. Perennial. Breeding Material. Seed.
- PI 536536 **donor id:** INDIAN. **origin:** United States. **pedigree:** Population from composite of Sirsa No. 9, Arizona Indian and Mesa Sirsa. **other id:** GP-235. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, and heterosis. Perennial. Breeding Material. Seed.
- PI 536537 **donor id:** TURKISTAN. **origin:** United States. **pedigree:** Population from composite of Turkistan (including PI 452461 and PI 190258), Kayseri (including PI 170536 and PI 17172) Nemastan, Hardistan, Orestan, Dk 167, Deseret, Washoe, Lahontan and Lahontan PGL. **other id:** GP-236. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, and heterosis. Perennial. Breeding Material. Seed.

PI 536531 to 536539-continued

PI 536538 **donor id:** FLEMISH. **origin:** United States. **pedigree:** Population from composite of Socheville, G777, Stride, Europa, Apex, Anchor, G7730, Alfa, K78-10, Tourneur 501, Flemish Phy. SC, MN Flemish Phy., Anchor P2, Du Puits, and Flemish PRR. **other id:** GP-237. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, and heterosis. Perennial. Breeding Material. Seed.

PI 536539 **donor id:** AFRICAN. **origin:** United States. **pedigree:** Population from composite of Lew, Sonora, Sonora 70, Byran Syn., African 4-31-A, Moapa and African 4-44-A. **other id:** GP-238. **group:** CSR-ALFALFA. **remarks:** Germplasm source for basic studies related to genetic diversity, heterozygosity, and heterosis. Perennial. Breeding Material. Seed.

PI 536540. *Phaseolus vulgaris* L. FABACEAE Black bean

Donated by: Ghaderi, A., Dept. of Crop and Soil Sciences, Michigan State University, East Lansing, Michigan, United States. **remarks:** Developed by the Michigan Agricultural Experiment Station and USDA-ARS and released in 1989. Received November 15, 1989.

donor id: B83302. **origin:** United States. **cultivar:** BLACKHAWK. **pedigree:** Tuscola/CN49-242/2/Black Magic/3/Midnight. **other id:** CV-83. **group:** CSR-OTHER LEGUMES. **other id:** PVP 9000107. **source:** Pending. **group:** PVPO. **remarks:** Tropical type with upright growth, full season yielding and disease resistance. Plants erect, type II. Vine growth short. Yield 26.5 kg per hectare in absence of anthracnose. Days to harvest maturity 100. Seeds black. Consumer and culinary qualities and color retention good. Resistant to all strains of common bean mosaic virus, anthracnose, and bean rust. Tolerance to halo blight and angular leaf spot. Annual. Cultivar. Seed.

PI 536541. *Phaseolus vulgaris* L. FABACEAE Common bean

Donated by: Park, S.J.; Buttery, B.R., Agriculture Canada Research Station, Harrow, Ontario, Canada. **remarks:** Developed by the Agriculture Canada Research Station, and released in 1989. Received November 15, 1989.

PI 536541-continued

donor id: R32. **origin:** Canada. **pedigree:** Mutation (M2 plant) from a population of OAC Rico treated with ethyl methane sulphonate. **other id:** GP-88. **group:** CSR-OTHER LEGUMES. **remarks:** Mutant germplasm with improved nodulation and nitrogen fixation in presence of nitrate-nitrate tolerant super-nodulation (ntsn). Recessive gene nod controls the nitrate super-nodulation in the shoot. Growth habit indeterminate, similar to OAC Rico. Nodulation superior. Hypocotyl green. Flowers white. Pod light brown at maturity. Seeds white with dull coat. Annual. Breeding Material. Seed.

PI 536542. *Phaseolus vulgaris* L. FABACEAE Pinto bean

Donated by: Kelly, J.D., Dept. of Crop and Soil Sciences, Michigan State University, East Lansing, Michigan, United States. **remarks:** Developed cooperatively by the Michigan Agric. Exp. Station and USDA-ARS and released in 1989. Received November 15, 1989.

donor id: P86299. **origin:** United States. **cultivar:** SIERRA. **pedigree:** Mutation (M2 plant) from a population of OAC Rico treated with ethyl methane sulphonate. **other id:** CV-84. **group:** CSR-OTHER LEGUMES. **other id:** PVP 9000108. **source:** Pending. **group:** PVPO. **remarks:** Upright, midseason type. Plants type II with short vine. Single stem tendency under high plant density. Plants 20cm taller than commercial cultivars with improved lodging resistance. Pod placement high. Yield high. Maturity 95 days. Direct machine harvest. Seed weight 39g/100. Moderate resistance to anthracnose. Tolerant to halo blight. Resistant to rust. Field tolerance to potato leafhopper. Annual. Cultivar. Seed.

PI 536543. *Hordeum vulgare* L. POACEAE Barley

Donated by: Ullrich, S.E., Dept. of Agronomy & Soils, Washington State University, Johnson Hall 201, Pullman, Washington, United States. Received December 01, 1989.

donor id: Sel. 1574-77. **origin:** United States. **cultivar:** HUNDRED. **pedigree:** Sel. from 2196-68(Luther/Hudson)/2509-65(Alpine/Svalof//WW/TBM-305). **other id:** WA 066739. **remarks:** Semi-dwarf, 6-rowed non-malting type. Yield high. Lodging resistance good. Winterhardiness very good. Heads club, erect. Awns rough. Aleurone white. Adaptation dryland or irrigated conditions in eastern Washington and adjacent areas of Idaho and Oregon. Used for feed. Composition favorable. Winter Annual. Cultivar. Seed.

PI 536544. Cucumis sp. CUCURBITACEAE Watermelon

Donated by: Nat. Bureau of Plant Genetic Resources, IARI Campus, New Delhi, India. Received September 19, 1989.

origin: India. **local name:** Roundmelon, Tinda. **remarks:** Grown in northern India, around Punjab province.

PI 536545. Vigna radiata (L.) R. Wilczek FABACEAE Mungbean

Donated by: Miller, J. C., Department of Horticultural Science, Texas A & M University, College Station, Texas, United States.
remarks: Joint release of Texas Agricultural Experiment Station and the Asian Vegetable Research and Development Center. Received November 01, 1989.

donor id: VC1973A. **origin:** Taiwan. **cultivar:** TEXSPROUT.
pedigree: V3476 (CES ID-21 or Pag-asa 1)/V1400 (EG-MG-16). **other id:** TX 1973A. **remarks:** Plants erect, determinate. Flowers yellow-green. Mature pods black with pendant attachment. Seeds large, shiny green, oval, (greater than or equal to 12 seeds per pod.) High resistance to shattering and lodging. Sprouts superior in size and yield. Early maturing and flowering. Sensitive to pendimethalin herbicide. Adaptability wide. **disease resistance:** Moderate to Powdery mildew (Erysiphe polygoni). Moderate to Cercospora leaf spot (Cercospora spp.). **insect resistance:** Moderate to Pod borer (Cydia spp.) and aphid (Aphis spp.). Annual. Cultivar. Seed.

PI 536546 to 536547. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Shanmusasundaram, S., AVRDC, Shanhua, Tainan, Taiwan. Received May 30, 1989.

PI 536546 **donor id:** AGS 292. **origin:** Taiwan. **cultivar:** TAISHO SHIROGE. Cultivar. Seed.

PI 536547 **donor id:** G 10134. **origin:** Taiwan. **cultivar:** RYOKKOH. Cultivar. Seed.

PI 536548. Abelmoschus moschatus Medikus MALVACEAE Ambrette

Donated by: Mehra, K.L., IBPGR, Rome, Italy. **remarks:** Received through IBPGR, Rome, Italy. Received September 11, 1989.

PI 536548-continued

donor id: KLM 1859. origin: Maldives. collected: November 23, 1986. collector: K.L. Mehra. collector id: KLM 1859. locality: Weed in fields of Capsicum, sandy loam soil, good drainage, on raised bunds, Isdhoo, Laamu Atoll. latitude: 02 deg. 07 min. N. longitude: 073 deg. 35 min. E. remarks: Twenty five plants sampled. No pests and diseases observed. Erosion present in area. Wild. Seed.

PI 536549. *Avena sativa* L. POACEAE Common oat

Donated by: Dubuc, J.P.; Comeau, A., Agriculture Canada, 2560 Boul Hochelaya, Sainte-Foy, Quebec, Canada. Received November 20, 1989.

donor id: Q.O. 186.10. origin: Canada. cultivar: MARION QC. pedigree: Siberian/1952/2/Clintafe/3/Rodney/4/Roxton/RL 1276/2/Ajax/ RL 1276/3/Garry/Klein/5/Shefford/Craig/2/Garry/Glen. remarks: Plants tall. Maturity early. Lodging resistance reasonable. Biomass good. Seed yield very good throughout eastern Canada. Kernals white, long, plump, heavy (36g/100). Hectoliter weight average. Awns rare, small. Susceptible to rust and BYDV. Beta glucan content high. Spring Annual. Cultivar. Seed.

PI 536550 to 536611. *Sorghum bicolor* (L.) Moench POACEAE Sorghum

Donated by: Meckenstock, D., Escuela Agricola Pan Americana, P. O. Box 93, Tegucigalpa, Honduras; and Gomez, F.A., Ministerio de Recursos Naturales, Tegucigalpa, Honduras; and Paul, C., ICRISAT/CIMMYT, Apartido Postal 6-641, Mexico 6, D. F., Mexico. remarks: Received through F.R. Miller, Dept. of Soil and Crop Sciences, Texas A&M University, College Station, Texas. Received May 30, 1989.

PI 536550 origin: Honduras. cultivar: CATURRA. other id: Grif 1. other id: Honsc 1. restricted: QUAR. remarks: Plants purple, 185cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed color white and chalky. Breeding desirability 2.5(1=best, 5=worst). Susceptible to sorghum rust (*Puccinia purpurea*). RACE Caudatum Durra. disease resistance: Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536551 **origin:** Honduras. **cultivar:** COLA DE CABALLO. **other id:** Grif 2. **other id:** Honsc 2. **restricted:** QUAR. **remarks:** Plants purple, 240cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed color white and chalky. Breeding desirability 2.6(1=best, 5=worst). Susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Conspicuum. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536552 **origin:** Honduras. **cultivar:** COLA DE PERICO. **other id:** Grif 3. **other id:** Honsc 3. **restricted:** QUAR. **remarks:** Plants purple, 215cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed color white and translucent. Breeding desirability 2.4 (1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536553 **origin:** Honduras. **cultivar:** LAS LAJAS-10. **other id:** Grif 4. **other id:** Honsc 4. **restricted:** QUAR. **remarks:** Plants purple, 225cm>tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ (no starch grains). Testa absent. Spreader gene unknown. Seed color white and translucent. Breeding desirability 2.3(1=best, 5=worst). Susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536554 **origin:** Honduras. **cultivar:** LERDO. **other id:** Grif 5. **other id:** Honsc 5. **restricted:** QUAR. **remarks:** Plants purple, 190cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp zz(starch grains). Testa absent. Spreader gene unknown. Seed color white and chalky. Breeding desirability 2.5(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536555 **origin:** Honduras. **cultivar:** MC-3. **other id:** Grif 6. **other id:** Honsc 6. **restricted:** QUAR. **remarks:** Plants purple, 180cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz (starch grains). Testa absent. Spreader gene unknown. Seed color white and chalky. Breeding desirability 2.4(1=best, 5=worst). Susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536556 **origin:** Honduras. **cultivar:** NORTENO-71. **other id:** Grif 7. **other id:** Honsc 7. **restricted:** QUAR. **remarks:** Plants purple, 185cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed color white and translucent. Breeding desirability 2.5(1= best,5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum/Kafir. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536557 **origin:** Honduras. **cultivar:** PARAQUE. **other id:** Grif 8. **other id:** Honsc 8. **restricted:** QUAR. **remarks:** Plants purple, 220cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed color white and chalky. Breeding desirability 2.2(1=best, 5=worst). Moderately susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536558 **origin:** Honduras. **cultivar:** PINA. **other id:** Grif 9. **other id:** Honsc 9. **restricted:** QUAR. **remarks:** Plants purple, 205cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed color white and translucent. Breeding desirability 2.5 (1=best, 5=worst). Susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Durra Kafir. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536559 **origin:** Honduras. **cultivar:** PLANO DE NAMASIQUE. **other id:** Grif 10. **other id:** Honsc 10. **restricted:** QUAR. **remarks:** Plants purple, 220cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed color white and chalky. Breeding desirability 2.3(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536560 **origin:** Honduras. **cultivar:** POMPOM. **other id:** Grif 11. **other id:** Honsc 11. **restricted:** QUAR. **remarks:** Plants purple, 230cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed color white and translucent. Breeding desirability 2.3 (1=best, 5=worst). Susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Durra Kafir. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536561 **origin:** Honduras. **cultivar:** 85 EUR-105. **other id:** Grif 12. **other id:** Honsc 13. **restricted:** QUAR. **remarks:** Plants purple, 210cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed color white and translucent. Breeding desirability 2.3 (1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.
- PI 536562 **origin:** Honduras. **cultivar:** LERDO LIJERO. **other id:** Grif 13. **other id:** Honsc 18. **restricted:** QUAR. **remarks:** Plants purple, 140cm tall, uniform. Photoperiod sensitive. Midrib gene dd(juicy). Pericarp white. Mesocarp gene zz(starch grains). Testa present. Spreader gene ss. Seed color white and chalky. Breeding desirability 2.5(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum. **disease resistance:** Anthracnose (*Colletotrichum gramincola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536563 **origin:** Honduras. **cultivar:** SAN MIQUEL #1. **other id:** Grif 14. **other id:** Honsc 19. **restricted:** QUAR. **remarks:** Plants purple, 145cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed color white and translucent. Breeding desirability 2.1 (1=best, 5=worst). Susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536564 **origin:** Honduras. **cultivar:** PELETON. **other id:** Grif 15. **other id:** Honsc 21. **restricted:** QUAR. **remarks:** Plants purple, 155cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed color white and chalky. Breeding desirability 2.5 (1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536565 **origin:** Honduras. **cultivar:** SAN BARNARDO II. **other id:** Grif 16. **other id:** Honsc 22. **restricted:** QUAR. **remarks:** Plants purple, 165cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed color white and translucent. Breeding desirability 2.4 (1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum/Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536566 **origin:** Honduras. **cultivar:** POR VENIR. **other id:** Grif 17. **other id:** Honsc 23. **restricted:** QUAR. **remarks:** Plants purple, 180cm tall, moderately variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz/ZZ(starch, no starch mixture). Testa absent. Spreader gene unknown. Seed white, chalky and translucent. Breeding desirability 2.4(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536567 **origin:** Honduras. **cultivar:** GIGANTE. **other id:** Grif 18. **other id:** Honsc 24. **restricted:** QUAR. **remarks:** Plants purple, 220cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.1(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536568 **origin:** Honduras. **cultivar:** DANLI-208. **other id:** Grif 19. **other id:** Honsc 25. **restricted:** QUAR. **remarks:** Plants purple, 195cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.5 (1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536569 **origin:** Honduras. **cultivar:** CRIOLLO LA PAZ #2. **other id:** Grif 20. **other id:** Honsc 26. **restricted:** QUAR. **remarks:** Plants purple, 190cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.8(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536570 **origin:** Honduras. **cultivar:** CRIOLLO CUBANO. **other id:** Grif 21. **other id:** Honsc 27. **restricted:** QUAR. **remarks:** Plants purple, 230cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.3(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536571 **origin:** Honduras. **cultivar:** CRIOLLO CABEZA APRETADA. **other id:** Grif 22. **other id:** Honsc 28. **restricted:** QUAR. **remarks:** Plants purple, 215cm tall, variable. Photoperiod sensitive. Midrib gene DD/dd/dry/juicy) mixture. Pericarp white. Mesocarp zz/ZZ(starch/no starch grain mixture). Testa absent. Spreader gene unknown. Seed white and chalky, translucent. Breeding desirability 2.0(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum & Caudatum Durra Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536572 **origin:** Honduras. **cultivar:** CRIOLLO PORVENIR. **other id:** Grif 23. **other id:** Honsc 29. **restricted:** QUAR. **remarks:** Plants purple, 185cm tall, moderately variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp zz/ZZ(starch/no starch grain mixture). Testa absent. Spreader gene unknown. Seed white, chalky, and translucent. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536573 **origin:** Honduras. **cultivar:** CRIOLLO PORVENIR III. **other id:** Grif 24. **other id:** Honsc 30. **restricted:** QUAR. **remarks:** Plants purple, 190cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536574 **origin:** Honduras. **cultivar:** CRIOLLO MANZANO II. **other id:** Grif 25. **other id:** Honsc 31. **restricted:** QUAR. **remarks:** Plants purple, 220cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.3(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536575 **origin:** Honduras. **cultivar:** CRIOLLO MANZANO I. **other id:** Grif 26. **other id:** Honsc 32. **restricted:** QUAR. **remarks:** Plants purple, 200cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536576 **origin:** Honduras. **cultivar:** CRIOLLO GRINGO. **other id:** Grif 27. **other id:** Honsc 33. **restricted:** QUAR. **remarks:** Plants purple, 240cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.2(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536577 **origin:** Honduras. **cultivar:** CRIOLLO CHINANGA. **other id:** Grif 28. **other id:** Honsc 34. **restricted:** QUAR. **remarks:** Plants purple, 230cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.3(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536578 **origin:** Honduras. **cultivar:** CRIOLLO PUNTA DE LANZA. **other id:** Grif 29. **other id:** Honsc 35. **restricted:** QUAR. **remarks:** Plants purple, 240cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.0(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536579 **origin:** Honduras. **cultivar:** CRIOLLO PELOTON. **other id:** Grif 30. **other id:** Honsc 36. **restricted:** QUAR. **remarks:** Plants purple, 210cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.5(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536580 **origin:** Honduras. **cultivar:** CRIOLLO SAPO. **other id:** Grif 31. **other id:** Honsc 37. **restricted:** QUAR. **remarks:** Plants purple, 170cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536581 **origin:** Honduras. **cultivar:** CRIOLLO SAN BERNARDO III. **other id:** Grif 32. **other id:** Honsc 38. **restricted:** QUAR. **remarks:** Plants purple, 180cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536582 **origin:** Honduras. **cultivar:** CRIOLLO #4. **other id:** Grif 33. **other id:** Honsc 39. **restricted:** QUAR. **remarks:** Plants purple, 200cm tall, mostly uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536583 **origin:** Honduras. **cultivar:** CRIOLLO #2. **other id:** Grif 34. **other id:** Honsc 40. **restricted:** QUAR. **remarks:** Plants purple, 205cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536584 **origin:** Honduras. **cultivar:** CRIOLLO DE SEDA. **other id:** Grif 35. **other id:** Honsc 41. **restricted:** QUAR. **remarks:** Plants purple, 210cm tall, moderately variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.5(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536585 **origin:** Honduras. **cultivar:** CRIOLLO MAICILLON. **other id:** Grif 36. **other id:** Honsc 42. **restricted:** QUAR. **remarks:** Plants purple, 200cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.5(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536586 **origin:** Honduras. **cultivar:** CRIOLLO GUAYMANGO. **other id:** Grif 37. **other id:** Honsc 43. **restricted:** QUAR. **remarks:** Plants purple, 215cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.5(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536587 **origin:** Honduras. **cultivar:** CRIOLLO CORONA. **other id:** Grif 38. **other id:** Honsc 44. **restricted:** QUAR.
remarks: Plants purple, 230cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.2(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536588 **origin:** Honduras. **cultivar:** CRIOLLO JOCORO. **other id:** Grif 39. **other id:** Honsc 45. **restricted:** QUAR.
remarks: Plants purple, 205cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.4(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536589 **origin:** Honduras. **cultivar:** CRIOLLO CACHO DE CHIVO. **other id:** Grif 40. **other id:** Honsc 46. **restricted:** QUAR. **remarks:** Plants purple, 240cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.4(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536590 **origin:** Honduras. **cultivar:** CRIOLLO PIJON. **other id:** Grif 41. **other id:** Honsc 47. **restricted:** QUAR.
remarks: Plants purple, 210cm tall, variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.4(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536591 **origin:** Honduras. **cultivar:** CRIOLLO CHILEZO BLANCO. **other id:** Grif 42. **other id:** Honsc 48. **restricted:** QUAR. **remarks:** Plants purple, 230cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.2(1=best, 5= worst). Very susceptible to sorghum rust (Puccinia purpurea). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (Colletotrichum graminicola). Annual. Cultivar. Seed.
- PI 536592 **origin:** Honduras. **cultivar:** CRIOLLO LERDO LIGERO. **other id:** Grif 43. **other id:** Honsc 50. **restricted:** QUAR. **remarks:** Plants purple, 175cm tall, variable. Photoperiod sensitive. Midrib gene dd(juicy). Pericarp white. Mesocarp gene zz(starch grains). Testa present. Spreader gene ss. Seed white and chalky. Breeding desirability 2.1 (1=best, 5=worst). Very susceptible to sorghum rust (Puccinia purpurea). **RACE** Caudatum Feterita. **disease resistance:** Anthracnose (Colletotrichum graminicola). Annual. Cultivar. Seed.
- PI 536593 **origin:** Honduras. **cultivar:** CRIOLLO LECHE. **other id:** Grif 44. **other id:** Honsc 51. **restricted:** QUAR. **remarks:** Plants purple, 195cm tall, moderately variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (Puccinia purpurea). **RACE** Caudatum Kafir Durra. **disease resistance:** Anthracnose (Colletotrichum graminicola). Annual. Cultivar. Seed.
- PI 536594 **origin:** Honduras. **cultivar:** CRIOLLO AMARILLO. **other id:** Grif 45. **other id:** Honsc 52. **restricted:** QUAR. **remarks:** Plants purple, 205cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.3(1=best, 5=worst). Very susceptible to sorghum rust (Puccinia purpurea). **RACE** Caudatum Kafir Durra. **disease resistance:** Anthracnose (Colletotrichum graminicola). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536595 **origin:** Honduras. **cultivar:** CRIOLLO PANAMENO. **other id:** Grif 46. **other id:** Honsc 53. **restricted:** QUAR. **remarks:** Plants purple, 190cm tall, moderately variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.7(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Durra Caudatum. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536596 **origin:** Honduras. **cultivar:** CRIOLLO PIEDRA PARADA. **other id:** Grif 47. **other id:** Honsc 54. **restricted:** QUAR. **remarks:** Plants purple, 190cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536597 **origin:** Honduras. **cultivar:** CRIOLLO TEXISTEPEQUE. **other id:** Grif 48. **other id:** Honsc 55. **restricted:** QUAR. **remarks:** Plants purple, 185cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.7(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536598 **origin:** Honduras. **cultivar:** CRIOLLO DANLI. **other id:** Grif 50. **other id:** Honsc 56A. **restricted:** QUAR. **remarks:** Plants purple, 230cm tall, variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.8(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536599 **origin:** Honduras. **cultivar:** CRIOLLO DANLI. **other id:** Grif 51. **other id:** Honsc 56B. **restricted:** QUAR.
remarks: Plants purple, 230cm tall, variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.8(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536600 **origin:** Honduras. **cultivar:** CRIOLLO SALPOR. **other id:** Grif 52. **other id:** Honsc 57. **restricted:** QUAR.
remarks: Plants purple, 205cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.5(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536601 **origin:** Honduras. **cultivar:** CRIOLLO LA PAZ LADO OESTE. **other id:** Grif 53. **other id:** Honsc 58. **restricted:** QUAR. **remarks:** Plants purple, 190cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.7(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536602 **origin:** Honduras. **cultivar:** CRIOLLO GUILLERMINA. **other id:** Grif 54. **other id:** Honsc 59. **restricted:** QUAR.
remarks: Plants purple, 230cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.2(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536603 **origin:** Honduras. **cultivar:** CRIOLLO GUANACO. **other id:** Grif 55. **other id:** Honsc 60. **restricted:** QUAR. **remarks:** Plants purple, 220cm tall, variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.3(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536604 **origin:** Honduras. **cultivar:** CRIOLLO #1. **other id:** Grif 56. **other id:** Honsc 61. **restricted:** QUAR. **remarks:** Plants purple, 220cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.4(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536605 **origin:** Honduras. **cultivar:** CRIOLLO BLANCO. **other id:** Grif 57. **other id:** Honsc 62. **restricted:** QUAR. **remarks:** Plants purple, 240cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene ZZ(no starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.2(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Kafir Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536606 **origin:** Honduras. **cultivar:** CRIOLLO MAZATEPEQUE. **other id:** Grif 58. **other id:** Honsc 63. **restricted:** QUAR. **remarks:** Plants purple, 200cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.4(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Kafir. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

- PI 536607 **origin:** Honduras. **cultivar:** CRIOLLO VIEJO. **other id:** Grif 59. **other id:** Honsc 64. **restricted:** QUAR. **remarks:** Plants purple, 230cm tall, quite variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and translucent. Breeding desirability 2.8(1=best 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Kafir Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536608 **origin:** Honduras. **cultivar:** CRIOLLO PLANO DE MAZATIQUE. **other id:** Grif 60. **other id:** Honsc 69. **restricted:** QUAR. **remarks:** Plants purple, 195cm tall, moderately variable. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.4(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536609 **origin:** Honduras. **cultivar:** CRIOLLO COLUDO. **other id:** Grif 61. **other id:** Honsc 70. **restricted:** QUAR. **remarks:** Plants purple, 215cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.3(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.
- PI 536610 **origin:** Honduras. **cultivar:** CRIOLLO COLA DE BURRO. **other id:** Grif 62. **other id:** Honsc 71. **restricted:** QUAR. **remarks:** Plants purple, 190cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.6(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **RACE** Caudatum Durra. **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536550 to 536611-continued

PI 536611 **origin:** Honduras. **cultivar:** CRIOLLO PINA. **other id:** Grif 63. **other id:** Honsc 72. **restricted:** QUAR.
remarks: Plants purple, 215cm tall, uniform. Photoperiod sensitive. Midrib gene DD(dry). Pericarp white. Mesocarp gene zz(starch grains). Testa absent. Spreader gene unknown. Seed white and chalky. Breeding desirability 2.5(1=best, 5=worst). Very susceptible to sorghum rust (*Puccinia purpurea*). **disease resistance:** Anthracnose (*Colletotrichum graminicola*). Annual. Cultivar. Seed.

PI 536612 to 536614. *Avena sativa* L. POACEAE Common oat

Donated by: Livingston III, D.P., Marshall, H.G., U.S. Regional Pasture Research Lab., USDA-ARS, Penn State University, University Park, Pennsylvania, United States; and Kolb, F.L., Dept. of Agronomy, University of Illinois, Urbana, Illinois, United States.
remarks: Cooperative release by the USDA-ARS and the Pennsylvania Agric. Experiment Station in March 1989. Received December 13, 1989.

PI 536612 **donor id:** PENNCOMP 36. **origin:** United States. **pedigree:** Composite from nine crosses after selection cycles. Parental cultivars/lines used in crosses with Pennlo included Larry, Noble, IL75-3389 Sel., Pennline 6571, PA7967-7907, PA7967-11644, PA79G252-1, & PA7836-7543. **other id:** GP-30. **group:** CSR-OATS. **remarks:** Composite with short plant height and improved kernel characteristics. Plants 70 to 110cm tall. Gene Frequency high for conditioning semidwarf to moderately short plant height. Spring Annual. Breeding Material. Seed.

PI 536613 **donor id:** PENNCOMP 37. **origin:** United States. **pedigree:** Composite from seven crosses after selection cycles. Pennline 6571 used in all crosses that included Larry, Pennlo, IL75-3389/Sel MI69-27403, PA7836-10449, PA79G252-1 and PA7836-99. **other id:** GP-31. **group:** CSR-OATS. **remarks:** Composite with short plant height and improved kernel characteristics. Plants 70 to 98cm tall. Gene frequency high for conditioning semidwarf to moderately short plant height. Spring Annual. Breeding Material. Seed.

PI 536614 **donor id:** PENNCOMP 38. **origin:** United States. **pedigree:** Compositated seed from 23 crosses between sibs of Pennlo semidwarf (Egdolon 26/Otee) or between Pennlo and a sib. **other id:** GP-32. **group:** CSR-OATS. **remarks:** Composite with short plant height and improved kernel characteristics. Average plant height 72cm. Gene frequency high for conditioning semidwarf to moderately short plant height. Spring Annual. Breeding Material. Seed.

PI 536615 to 536618. *Avena nuda* L. POACEAE Naked oat

Donated by: Livingston III, D.P.; Marshall, H.G., U.S. Regional Pasture Research Lab., USDA-ARS, Penn State University, University Park, Pennsylvania, United States; and Kolb, F.L., Dept. of Agronomy, University of Illinois, Urbana, Illinois, United States.
remarks: Cooperative release by the USDA-ARS and the Pennsylvania Agric. Experiment Station in March 1989. Received December 13, 1989.

PI 536615 **donor id:** PENNCOMP 39. **origin:** United States. **pedigree:** Bulked seed (F5 to F12) from 17 crosses with either naked-seeded Pennline 2005(Noble/Nuprime) or a sib-line as a parent. Other parents included OTO2337, PI401780, PI401822, PI401823, PI401824, OA503-1, OA501-1 and others. **other id:** GP-33. **group:** CSR-OATS. **remarks:** Germplasm population with predominately naked seed but genetically diverse for other traits. Hulless seeds 95%. Spring Annual. Breeding Material. Seed.

PI 536616 **donor id:** PENNCOMP 40. **origin:** United States. **pedigree:** Bulked seed (F5 to F13) from 10 crosses with either naked-seeded Pennline 9010(Noble*2/Nuprime) or a sib-line as a parent. Other parents include PI447272, OA503-1, Noble, Orbit, Dal, Hercules, and Mo 06622. **other id:** GP-34. **group:** CSR-OATS. **remarks:** Germplasm population with predominately naked seed but genetically diverse for other traits. Hulless seeds 86%. Spring Annual. Breeding Material. Seed.

PI 536617 **donor id:** PENNCOMP 41. **origin:** United States. **pedigree:** Bulked seed (F5 or F6) from 4 crosses with naked-seeded Pennline 9433 as a parent. Parental lines involved in crosses with Pennline 9433 included CI8447(semidwarf), Pennlo(semidwarf), Otee, Lang, Hercules, Sang and MO 06425. **other id:** GP-35. **group:** CSR-OATS. **remarks:** Germplasm population with predominately naked seed but genetically diverse for other traits. Hulless seeds 88%. Spring Annual. Breeding Material. Seed.

PI 536618 **donor id:** PENNCOMP 42. **origin:** United States. **pedigree:** Bulked seed (F5 or F8) from 11 crosses with a naked-seeded plant introduction as one parent. Various crosses of PIs 401780, 401822, 401823, 401824, 447275, 447276 with Larry, Pennlo (semidwarf), Pennline 9010, PA8098-9033 and others. **other id:** GP-36. **group:** CSR-OATS. **remarks:** Germplasm population with predominately naked seed but genetically diverse for other traits. Hulless seeds 96%. Spring Annual. Breeding Material. Seed.

PI 536619 to 536622. *Zea mays* L. POACEAE Corn

Donated by: Horner, E.S., Agronomy Department, 304 Newell Hall, University of Florida, Gainesville, Florida, United States.
remarks: Developed by the Florida Agricultural Experiment Station and released in 1989. Received December 15, 1989.

- * PI 536619 *Zea mays* L. subsp. *mays* POACEAE Corn
origin: United States. **cultivar:** FS8A(S)C4. **pedigree:** Germplasm from Southeastern US 35%, Corn Belt 23%, and Tropical sources 42%. **other id:** GP-214. **group:** CSR-MAIZE. **remarks:** Germplasm with resistance to Southern corn leaf blight (*Bipolaris maydis*) race 0 developed by the S method. Maturity AES1200. Annual. Breeding Material. Seed.

- * PI 536620 *Zea mays* L. subsp. *mays* POACEAE Corn
origin: United States. **cultivar:** FS8A(T)C4. **pedigree:** Germplasm from Southeastern US 30%, Corn Belt 22%, and Tropical sources 48%. **other id:** GP-215. **group:** CSR-MAIZE. **remarks:** Germplasm with resistance to Southern corn leaf blight (*Bipolaris maydis*) race 0 and improved combining ability using T method. Maturity AES1200. Annual. Breeding Material. Seed.

- * PI 536621 *Zea mays* L. subsp. *mays* POACEAE Corn
origin: United States. **cultivar:** FS8B(S)C4. **pedigree:** Germplasm from Southeastern US 21%, Corn Belt 19%, and Tropical sources 60%. **other id:** GP-216. **group:** CSR-MAIZE. **remarks:** Germplasm with resistance to Southern corn leaf blight (*Bipolaris maydis*) race 0 and developed by the S method. Maturity AES1200. Annual. Breeding Material. Seed.

- * PI 536622 *Zea mays* L. subsp. *mays* POACEAE Corn
origin: United States. **cultivar:** FS8B(T)C4. **pedigree:** Germplasm from Southeastern US 24%, Corn Belt 22%, and Tropical sources 54%. **other id:** GP-217. **group:** CSR-MAIZE. **remarks:** Germplasm with resistance to Southern corn leaf blight (*Bipolaris maydis*) race 0 and improved combining ability using T method. Maturity AES1200. Annual. Breeding Material. Seed.

PI 536623 to 536625. *Helianthus annuus* L. ASTERACEAE Sunflower

Donated by: Fernandez-M., J., Institute of Agronomy and Protection,, CSIC, Apartado 240, Cordoba, Spain. **remarks:** Developed by the Agricultural Research Center, Cordoba, Spain, and released in 1988. Received December 15, 1989.

PI 536623 to 536625-continued

- PI 536623 **donor id:** PEM S-R-88. **origin:** Spain. **pedigree:** Derived from open pollinated variety Pemir. **other id:** GP-120. **group:** CSR-SUNFLOWER. **remarks:** B-line population with improved seed yield, absence of genes for restoration of male sterility, high oilseed content and potential high yield for use in inbred lines or recurrent selection. Plants unbranched. Maturity and plant type highly variable. Resistant to downy mildew (*Plasmopara halstedii*). Annual. Breeding Material. Seed.
- PI 536624 **donor id:** B-Sin-82. **origin:** Spain. **pedigree:** Synthetic broad based genetic germplasm from 29 high oil content lines and 10 S3 US and Spanish derived lines. **other id:** GP-121. **group:** CSR-SUNFLOWER. **remarks:** B-line population with improved seed yield, absence of genes for restoration of male sterility, high oilseed content and potential high yield for use in inbred lines or recurrent selection. Plants unbranched. Height, maturity and plant type highly variable. Annual. Breeding Material. Seed.
- PI 536625 **donor id:** B-FSS-88. **origin:** Spain. **pedigree:** Derived from B-Sin-82 following 3 cycles of reciprocal full sib selection with restorer population R-FSS-88. **other id:** GP-122. **group:** CSR-SUNFLOWER. **remarks:** B-line population with improved seed yield, absence of genes for restoration of male sterility, high oilseed content for use in inbred lines or recurrent selection. Plants unbranched. Height, maturity and plant type highly variable. Annual. Breeding Material. Seed.

PI 536626 to 536630. *Helianthus annuus* L. ASTERACEAE Sunflower

Donated by: Fernandez-M., J., Institute of Agronomy and Protection,, CSIC, Apartado 240, Cordoba, Spain. **remarks:** Developed by the Agricultural Research Center, Cordoba, Spain, and released in 1988. Received December 15, 1989.

- PI 536626 **donor id:** R-Sin-82. **origin:** Spain. **pedigree:** Combination of 12 US inbred lines, 6 Canada inbred lines and 20 F3 lines derived from commercial hybrids from Spain, Yugoslavia, and Argentina. **other id:** GP-123. **group:** CSR-SUNFLOWER. **remarks:** Restorer population for development of restorer inbred lines or continued recurrent selection in breeding programs. Plants branched. Resistant to downy mildew (*Plasmopara halstedii*). Maturity and agronomic characteristics vary widely. Oil seed content high. Annual. Breeding Material. Seed.

PI 536626 to 536630-continued

- PI 536627 **donor id:** R-FSS-88. **origin:** Spain. **pedigree:** Derived from R-Sin-82 after 3 cycles of reciprocal full sib selection for yield under dry land conditions. **other id:** GP-124. **group:** CSR-SUNFLOWER. **remarks:** Restorer population for development of restorer inbred lines or continued recurrent selection in breeding programs. Plants branched. Resistant to downy mildew (*Plasmopara halstedii*). Maturity and agronomic characteristics vary widely. Oil seed content high. Combines well with B-line population B-FSS-88. Annual. Breeding Material. Seed.
- PI 536628 **donor id:** R-C-HT-82. **origin:** Spain. **pedigree:** Cross of late maturing and high yielding Argentina hybrids and North American high oilseed lines using reciprocal full sib selection. **other id:** GP-125. **group:** CSR-SUNFLOWER. **remarks:** Restorer population for development of restorer inbred lines or continued recurrent selection in breeding programs. Plants branched. Resistant to downy mildew (*Plasmopara halstedii*). Maturity and agronomic characteristics vary widely. Oil seed content high. Annual. Breeding Material. Seed.
- PI 536629 **donor id:** F-Yu-82. **origin:** Spain. **pedigree:** 3 cycles of recombination of 32 European hybrids from FAO variety tests and 11 Yugoslavian hybrids selected under dryland conditions. **other id:** GP-126. **group:** CSR-SUNFLOWER. **remarks:** Restorer population for development of restorer inbred lines or continued recurrent selection in breeding programs. Plants branched. Resistant to downy mildew (*Plasmopara halstedii*). Maturity and agronomic characteristics vary widely. Oil seed content high. Annual. Breeding Material. Seed.
- PI 536630 **donor id:** R-C-SE-82. **origin:** Spain. **pedigree:** Recombination during 3 generations of 6 hybrids of different maturity with drought tolerance. **other id:** GP-127. **group:** CSR-SUNFLOWER. **remarks:** Restorer population for development of restorer inbred lines or continued recurrent selection in breeding programs. Plants branched. Resistance to downy mildew (*Plasmopara halstedii*). Maturity and agronomic characteristics vary widely. Oil seed content high. Harvest index and biomass high. Drought tolerance good. Annual. Breeding Material. Seed.

PI 536631. *Lolium perenne* L. POACEAE Perennial ryegrass

Donated by: Bailey, R.H., R.H. Bailey Seed Inc., 2700 19th Street, S.E. No. 1, Salem, Oregon, United States. **remarks:** Developed by R.H. Bailey Seed Inc. and released in August, 1988. Received December 15, 1989.

PI 536631-continued

origin: United States. **cultivar:** DANDY. **pedigree:** Advanced generation synthetic cultivar from progenies of 70 clones of old lawn-type turfs using 2 to 7 cycles of modified backcross and phenotypic recurrent selection. **other id:** PVP 8800224. **source:** Pending. **group:** PVPO. **other id:** CV-128. **group:** CSR-OTHER GRASSES. **remarks:** Cultivar with good winterhardiness, summer stress tolerance, and improved mowing qualities. Plants leafy, persistent with medium fine texture and density. Color bright dark green. Seedling vigor excellent. Wear tolerance good. Resistant to prevalent races of crown rust, large brown patch disease. and harmful insects where high levels of Acremonium endophyte are present. Perennial. Cultivar. Seed.

PI 536632 to 536633. Sorghum bicolor (L.) Moench POACEAE Sorghum

Donated by: Schertz, K.F., USDA-ARS, Department of Soil and Crop Sciences, Texas A&M University, College Station, Texas, United States; and Clark, L.E., Agricultural Research and Ext. Center, P.O. Box 1658, Vernon, Texas, United States; and Rosenow, D.T., Agricultural Research and Ext. Center, Route 3, Box 219, Lubbock, Texas, United States. **remarks:** Developed by USDA-ARS and the Texas Agricultural Experiment Station and released in November, 1988. Received December 15, 1989.

PI 536632 **donor id:** A3Tx430. **origin:** United States. **pedigree:** A3Tx398/5*RTx430. **other id:** GS-1. **group:** CSR-SORGHUM. **remarks:** Male-sterile genetic stock for use in producing completely male-sterile hybrids for early testing as females in crosses with maintainer lines of other cytoplasmic-nuclear male-sterile systems to determine the potential vigor of hybrids made with RTx430. Maintainers RTx430 and RTx7000 selections. Anthers large, yellow and pointed. Annual. Genetic Material. Seed.

PI 536633 **donor id:** A3Tx7000. **origin:** United States. **pedigree:** A3Tx398/5*A3Tx430. **other id:** GS-2. **group:** CSR-SORGHUM. **remarks:** Male-sterile genetic stock for use in producing completely male-sterile hybrids for early testing as females in crosses with maintainer lines of other cytoplasmic-nuclear male-sterile systems to determine the potential vigor of hybrids made with RTx7000. Maintainers are RTx7000 and RTx430. Anthers large, yellow, and pointed. Annual. Genetic Material. Seed.

PI 536634. *Festuca arundinacea* Schreber POACEAE Tall fescue

Donated by: Robinson, M.F., Seed Research of Oregon Inc., 644 SW 13th Street, Corvallis, Oregon, United States; and Clarke, B.B., Plant Pathology Department, New Jersey Agric. Experiment Sta., Cook College, Rutgers University, New Brunswick, New Jersey, United States; and Duell, R.W.; Funk, C.R.;, Crop Science Department, New Jersey Agric. Exp. Station, Cook College, Rutgers University, New Brunswick, New Jersey, United States. **remarks:** Developed by Seed Research of Oregon Inc. and released in August, 1987. Received December 15, 1989.

donor id: SR-8000. **origin:** United States. **cultivar:** TITAN. **pedigree:** Parental germplasm from an 11-state exploration program followed by cycles of population improvment and phenotypic recurrent selection of 207 maternal parents. **other id:** CV-129. **group:** CSR-OTHER GRASSES. **other id:** PVP 8800155. **source:** Pending. **group:** PVPO. **remarks:** Cultivar with very good summer stress tolerance, good winterhardiness and wear tolerance. Plants leafy, turf-type. Turf density medium. Color medium dark green. Moderately resistant to large brown patch (*Rhizoctonia solani*). Reproductive maturity medium late. Seed yield high. Little or no thatch. Perennial. Cultivar. Seed.

PI 536635. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Cooper, R.L., USDA-ARS, Dept. of Agronomy, Ohio Agric. Res. and Dev. Center, Wooster, Ohio, United States. **remarks:** Developed by the USDA-ARS and the Ohio Agricultural Research and Development Center and released in 1985. Received December 15, 1989.

origin: United States. **cultivar:** SPRITE. **pedigree:** Williams/Ransom, F4. **other id:** HW74-3884. **other id:** CV-250. **group:** CSR-SOYBEAN. **remarks:** Determinate cultivar with lodging resistance and high yield. Maturity Group III. Plants 60cm tall. Flowers white. Pubescence tawny. Pods tan at maturity. Seeds shiny yellow with black hila. Moderate field resistance to phytophthora rot (*Phytophthora megasperma* f. sp. *glycinea*). Suitable for yield environments greater than 3300kg pr hectare. Annual. Cultivar. Seed.

PI 536636. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Cooper, R.L., USDA-ARS, Dept. of Agronomy, Ohio Agric. Res. and Dev. Center, Wooster, Ohio, United States. **remarks:** Developed by the USDA-ARS and the Ohio Agricultural Research and Development Center and released in 1985. Received December 15, 1989.

PI 536636-continued

origin: United States. **cultivar:** RIPLEY. **pedigree:** Hodgson/V68-1034(York/PI 71506),F4 derived F5. **other id:** HC77-2204. **other id:** CV-251. **group:** CSR-SOYBEAN. **other id:** PVP 8700098. **source:** Certificate in force. **group:** PVPO. **remarks:** Determinate cultivar with lodging resistance and delayed flowering which permits greater plant height. Maturity Group IV. Plant height 75cm. Flowers purple. Pubescence gray. Pods tan. Seeds shiny yellow with buff hila. Field resistance to Phytophthora rot (Phytophthora megasperma f. sp. glycinea) good. Annual. Cultivar. Seed.

PI 536637. *Glycine max* (L.) Merr. FABACEAE Soybean

Donated by: Shipe, E.R., Department of Agronomy and Soils, Clemson University, Clemson, South Carolina, United States. **remarks:** Developed by the South Carolina Experiment Station and released in August, 1988. Received December 15, 1989.

donor id: SC82-1672. **origin:** United States. **cultivar:** PERRIN. **pedigree:** Coker/Braxton, F5. **other id:** CV-252. **group:** CSR-SOYBEAN. **remarks:** Cultivar with resistance to 3 species of root-knot nematode and disease stem canker, bacterial pustule, and powdery mildew. Maturity Group VIII. Flowers purple. Pubescence tawny with tan pod walls. Seeds yellow with black hila. Seed weight 15.3g per 100 seeds. Yield high in both full season and double crop. Lodging scores, protein and seed oil content similar to Kirby. Annual. Cultivar. Seed.

PI 536638 to 536644. *Vicia villosa* Roth FABACEAE Hairy vetch

Donated by: VIR, 44 Herzen Street, Leningrad, Soviet Union. Received November 15, 1989.

PI 536638 **donor id:** VIR-30672. **origin:** Soviet Union. **cultivar:** L'GOVSKAJA. Winter Annual. Cultivar. Seed.

PI 536639 **donor id:** VIR-31150. **origin:** France. **cultivar:** VESE VELE. **other id:** 1988-92 Delectus Seminum 2666. Cultivar. Seed.

PI 536640 **donor id:** VIR-31225. **origin:** Soviet Union. **cultivar:** SORNOPOLEVAJA. **other id:** 1988-92 Delectus Seminum 2668. **locality:** North-Ossetian, ASSR. Cultivar. Seed.

PI 536641 **donor id:** VIR-33469. **origin:** Soviet Union. **other id:** 1988-92 Delectus Seminum 2667. **locality:** Daghestan, ASSR. **remarks:** Local type. Seed.

PI 536638 to 536644-continued

PI 536642 donor id: VIR-33470. origin: Soviet Union. cultivar:
VORONEZSKAJA. locality: Daghestan, ASSR. remarks:
Winter type. Cultivar. Seed.

PI 536643 donor id: VIR-34284. origin: Soviet Union. cultivar:
POLTAVSKAJA 25. other id: 1988-92 Delectus Seminum 2664.
Cultivar. Seed.

PI 536644 donor id: VIR-34967. origin: Hungary. cultivar:
TORDASI. other id: 1988-92 Delectus Seminum 2665.
Cultivar. Seed.

Scientific Name Cross Reference

Abelmoschus esculentus	534520-534529, 534573-534582, 535943-535944	subsp. latilobum	535453
Abelmoschus moschatus	536432-536434, 536548	Chrysopogon gryllus	
Abelmoschus sp.	535945-535946, 536435-536436	subsp. echinulatus	532927
Achillea millefolium	532915	Cicer arietinum	533669-533684
Agropyron cristatum	536010	Cicer microphyllum	532928
Agrostis gigantea	532916	Citrullus lanatus	534530-534535, 534583-534599, 535947-535948, 536445-536464
Amaranthus sp.	536437	Crambe abyssinica	533664-533668
Amaranthus viridis	536438-536444	Crotalaria laburnifolia	533591
Anthyllis hamosa	535573	Cucumis callosus	532839, 536465-536478
Anthyllis tetraphylla	535574	Cucumis melo	532840-532844, 534536-534538, 534600-534605, 536479-536481
Aquilegia sp.	532918-532919	Cucumis sativus	534539-534545, 535880-535881, 536482
Arachis hypogaea	536051-536312	Cucumis sp.	532929, 536544
Arachis hypogaea subsp. fastigiata	535816-535817	Cucurbita maxima	534546-534550, 534606-534612, 536496
Argyrolobium uniflorum	535455-535456, 535736	Cucurbita moschata	534551-534556, 534613-534619
Aristida adscensionis	532917	Cucurbita pepo	534557-534572, 534620-534636, 534638-534641
Asparagus lucidus	533599	Cucurbita sp.	536483-536495
Astragalus cicer	535812-535815	Cuphea aequipetala	534660-534662
Astragalus corrugatus	535457-535458	Cuphea aff. hookeriana	534684
Astragalus hamosus	535459-535461	Cuphea angustifolia	534663-534664, 534892
Astragalus sp.	532920-532922	Cuphea aperta	534777-534779, 534838, 534893
Australopyrum pectinatum	533012	Cuphea calcarata	534665
Australopyrum retrofractum	533013-533014	Cuphea calophylla	534666, 534780-534783
Avena nuda	536615-536618	Cuphea calophylla var. mesostemon	534667-534668
Avena sativa	536045, 536549, 536612-536614	Cuphea carthagenensis	534669-534674, 534784, 534839-534840
Beta vulgaris	535818	Cuphea confertiflora	534675
Beta vulgaris subsp. vulgaris	535822-535846	Cuphea crassiflora	534676
Biserrula pelecinus	535575	Cuphea denticulata	534677
Bituminaria bituminosa	535576-535578	Cuphea elliptica	534678
Brachypodium sp.	533015	Cuphea glossostoma	534679, 534841
Brassica napus var. napus	535847-535878	Cuphea glutinosa	534680-534682, 534842, 534894
Bromus pectinatus	532923	Cuphea hookeriana	534683, 534834-534835, 534845, 534895-534897
Bromus riparius	536012-536013	Cuphea hybrid	534785, 534846
Calamagrostis pseudophragmites	532924-532926	Cuphea hyssopifolia	534685-534686, 534898
Calendula officinalis	535879		
Capsicum annum	532974-532993		
Cenchrus ciliaris	535462-535463		
Chrysanthemum zawadskii			

Cuphea ignea	534731,534772-534773,534826,534836,534843,534899	Draba sp.	532931
Cuphea inflata	534687	Ebenus pinnata	535470
Cuphea koehneana	534688-534690	Elymus austromontanus	533016-533022
Cuphea laminuligera	534691,534844,534900	Elymus hybrid	533023
Cuphea lanceolata	534732-534733,534847-534871	Elymus multiflorus	533024
Cuphea leptopoda	534692-534696,534872	Elymus rectisetus	533025-533182
Cuphea llavea	534697-534699,534774,534832,534837,534901	Elymus scabrus var. parviflorus	533183-533190
Cuphea lophostoma	534700	Elymus scabrus var. plurinervis	533191-533205
Cuphea lutea	534701,534873,534902-534903	Elymus scabrus var. scabrus	533206-533232
Cuphea melanium	534702	Elymus scabrus var. wilpenensis	533233-533238
Cuphea melvilla	534703,534904	Elytrigia elongata	535580
Cuphea micropetala	534704,534874,534905	Elytrigia juncea	535581
Cuphea palustris	534705	Eragrostis papposa	535471
Cuphea parsonsia	534706	Festuca arundinacea	535582,536634
Cuphea paucipetala	534707,534786,534875-534877	Festuca mairei	535747
Cuphea pinetorum	534827,534906-534907	Festuca valesiaca	532932-532933
Cuphea procumbens	534708-534714,534787-534788,534878-534885,534908	Fraxinus sp.	533592
Cuphea racemosa	534715-534718	Glycine max	532833-532834,533601-533602,533604-533605,533654-533657,534645-534648,535807,536009,536521,536546-536547,536635-536637
Cuphea racemosa subsp. hirticaulis	534719	Gossypium hirsutum	533629-533652,536497-536498,536522-536525
Cuphea salicifolia	534720	Gossypium sp.	536499
Cuphea sp.	534721,534789-534791,534825,534909	Hedysarum carnosum	535472
Cuphea toluhana	534722-534725,534792-534813,534886-534887,534910	Hedysarum coronarium	535473,535583-535589
Cuphea viscosissima	534726,534730,534734-534771,534828-534831,534833,534911	Hedysarum glomeratum	535474
Cuphea wrightii	534727-534729,534775-534776,534814-534824,534888-534891,534912	Hedysarum spinosissimum	535475-535481
Cynodon dactylon	536028-536029	Helianthus annuus	534649-534658,535888-535894,536623-536630
Cynodon sp.	536030	Hibiscus cannabinus	532872-532874,532995-533000
Dactylis glomerata	535464-535467,535579,535742-535746	Hibiscus sp.	533001-533008
Dactylis glomerata var. hispanica	535737	Hippocrepis scabra	535482
Daucus carota	535882-535887	Hippocrepis sp.	535483
Deschampsia caespitosa	532930	Hordeum vulgare	533600,534503-534519,536543
Digitaria argyroticha	535949-535951	Humulus lupulus	535808
Digitaria bicornis	535468-535469	Hyparrhenia hirta	535484
Digitaria sp.	535952	Indigofera sp.	532934-532935
		Ipomoea abrupta	535933
		Ipomoea aff. sp.	535937
		Ipomoea gracilis	535934
		Ipomoea graminea	535935

<i>Ipomoea polpha</i>	535936	<i>Medicago rugosa</i>	535533-535538, 535637-535640
<i>Ipomoea triloba</i>	536036-536044	<i>Medicago sativa</i>	533624-533625, 536014-536015, 536526-536539
<i>Iris ensata</i>	532936	<i>Medicago sativa</i>	<i>nsubsp. tunetana</i>
<i>Koeleria macrantha</i>	532937- 532938		535539- 535540
<i>Kummerowia striata</i>	535811	<i>Medicago scutellata</i>	535541- 535542, 535641-535645
<i>Lablab purpureus</i>	536500-536509	<i>Medicago soleirolii</i>	535646- 535647
<i>Lagerstroemia hybrid</i>	534642- 534644	<i>Medicago truncatula</i>	535543- 535554, 535648-535652, 535739, 535752
<i>Lathyrus cicera</i>	533685-533686	<i>Medicago turbinata</i>	535555
<i>Lens culinaris</i>	532850, 533688- 533693	<i>Melilotus albus</i>	532943-532944
<i>Leucaena leucocephala</i>	536510	<i>Melilotus officinalis</i>	532945- 532954
<i>Lolium perenne</i>	536017-536018, 536631	<i>Nicotiana tabacum</i>	532835- 532836
<i>Lotus corniculatus</i>	532939- 532941	<i>Ornithopus compressus</i>	535653
<i>Lotus creticus</i>	535590-535593	<i>Ornithopus pinnatus</i>	535654- 535655
<i>Lotus edulis</i>	535594	<i>Oryza sativa</i>	532849, 536046- 536047, 536429-536431
<i>Lotus sp.</i>	535595-535596	<i>Oryzopsis holciformis</i>	535656
<i>Lupinus albus</i>	533694-533707	<i>Oryzopsis miliacea</i>	535556- 535559, 535657-535669, 535740, 535753-535756
<i>Lupinus angustifolius</i>	533708	<i>Oryzopsis sp.</i>	532955
<i>Lupinus hispanicus</i>	533709- 533710	<i>Oxyria digyna</i>	532956
<i>Lupinus luteus</i>	533711-533713	<i>Panicum cf. sp.</i>	532957
<i>Lupinus sp.</i>	533714	<i>Panicum miliaceum</i>	536011
<i>Medicago arabica</i>	534168-534176	<i>Papaver rhoeas</i>	533715-533721
<i>Medicago arborea</i>	535597	<i>Papaver somniferum</i>	532851- 532858, 533722-533723
<i>Medicago ciliaris</i>	535485- 535490, 535598-535599	<i>Paspalum auriculatum</i>	536031
<i>Medicago constricta</i>	534177- 534191	<i>Paspalum scrobiculatum</i>	535938- 535941, 536032
<i>Medicago doliata</i>	535491-535493, 535600-535605	<i>Pennisetum glaucum</i>	535953- 535957, 536313-536428
<i>Medicago doliata var. muricata</i>	534192-534227	<i>Pennisetum hybrid</i>	535958- 535959
<i>Medicago intertexta</i>	535606- 535607	<i>Pennisetum macrourum</i>	535960
<i>Medicago italica</i>	535608-535609	<i>Pennisetum orientale</i>	532958- 532960
<i>Medicago laciniata</i>	534228, 535494-535496, 535610-535612, 535738, 535748-535749	<i>Pennisetum pedicellatum</i>	535961- 535974
<i>Medicago littoralis</i>	535497- 535498, 535613-535622	<i>Pennisetum polystachion</i>	535975- 535978, 536020-536025, 536033
<i>Medicago lupulina</i>	532942	<i>Pennisetum purpureum</i>	535979- 535983, 536026
<i>Medicago minima</i>	534229, 535499- 535508	<i>Pennisetum sieberianum</i>	535984- 535985
<i>Medicago murex</i>	534230-534233, 535509, 535623-535627	<i>Pennisetum sp.</i>	535986-535987
<i>Medicago orbicularis</i>	535510- 535518, 535628-535632	<i>Pennisetum trachyphyllum</i>	536034
<i>Medicago polymorpha</i>	535519- 535532, 535633-535636, 535750- 535751		
<i>Medicago praecox</i>	534234		
<i>Medicago rigidula</i>	534235- 534271		

Pennisetum violaceum	535942,	var. vulgare 534919-534926,
535988-535993		535392-535403
Petroselinum crispum	535895-	Phaseolus xanthotrichus 535452
535896		Phragmites karka 532961
Phalaris aquatica	535560,	Pisum sativum 533687
535670		Poa pratensis 535819-535820
Phalaris truncata	535561-	Potentilla sp. 532964-532965
535562, 535671-535672		Prunus padus var. commutata
Phaseolus acutifolius	533453-	536048
533455		Rostraria cristata 532966
Phaseolus acutifolius		Rumex sp. 532962-532963
var. acutifolius	535200-	Saccharum hybrid 532837-532838
535235		Sanguisorba minor 535757
Phaseolus acutifolius		Scorpiurus muricatus 535673-
var. tenuifolius	535236-	535674
535270		Scorpiurus muricatus
Phaseolus angustissimus	535271-	var. muricatus 535563-
535273		535565
Phaseolus coccineus	535274	Scorpiurus vermiculatus 535675-
Phaseolus coccineus		535677
subsp. coccineus	535275-	Scrophularia sp. 532967
535290		Secale cereale 534927-535199,
Phaseolus coccineus		535821
subsp. darwinianus	535291	Sesamum indicum 532845-532848
Phaseolus filiformis	535292-	Sesbania coerulescens 533593
535310		Sesbania rogersii 533594
Phaseolus glabellus	535311	Silene sp. 532968
Phaseolus grayanus	535312	Solanum melongena 536035
Phaseolus jalsicanus	535313	Sorghum arundinaceum 535994-
Phaseolus leptostachyus	535314-	535995
535337		Sorghum bicolor 532875-532890,
Phaseolus lunatus	535338-	533606-533623, 533653, 533745-
535348		534167, 535772-535806, 535996-
Phaseolus lunatus var. lunatus		536006, 536016, 536511-536516,
534913-534918		536550-536611, 536632-536633
Phaseolus macrolepis	535349	Sorghum purpureosericeum
Phaseolus maculatus	535350	536007-536008
Phaseolus micranthus	535351	Spinacia oleracea 535897
Phaseolus microcarpus	535352-	Sporobolus marginatus 535566
535364		Stipa sp. 532969
Phaseolus oligospermus	535365	Terminalia sericea 533595
Phaseolus parvulus	535366	Trifolium angustifolium 535678-
Phaseolus pedicellatus	535367	535680
Phaseolus pluriflorus	535368-	Trifolium campestre 535681
535369		Trifolium cherleri 535682-
Phaseolus polystachios		535686
var. polystachios	535370-	Trifolium fragiferum 535567-
535371		535570, 535687-535691
Phaseolus ritensis	535372	Trifolium hybrid 535809
Phaseolus sp.	535373-535391	Trifolium isthmocarpum 535571,
Phaseolus vulgaris	533239-	535692
533452, 533456-533590, 534637,		Trifolium pratense 532970-
536019, 536540-536542		532972
Phaseolus vulgaris		Trifolium sp. 535693
var. aborigineus	535404-	Trifolium striatum 535694-
535451		535695
Phaseolus vulgaris		Trifolium subterraneum 535696-

535734, 535758-535765
Trigonella anguina 535741
Trigonella foenum-graecum
 532859-532867
Trigonella maritima 535735
Trisetum aeneum 532973
Triticum aestivum 532891-
 532914, 532994, 534272-534502,
 535454, 535766-535771
Ulmus hybrid 536049
Ulmus wilsoniana 536050
Vernonia adoensis 533596
Vernonia amygdalina 533597
Vernonia bainesii 533598
Vicia ervilia 533724
Vicia faba 532868, 533725-
 533737
Vicia sativa 533738-533740
Vicia sp. 532869-532871, 533741-
 533744, 535572
Vicia villosa 536638-536644
Vigna radiata 536545
Vigna unguiculata 535810
Vigna unguiculata
 subsp. *unguiculata* 533009-
 533011
Zea mays 536517
Zea mays subsp. mays 533603,
 533626-533628, 533658-533663,
 534659, 535898-535932, 536518-
 536520, 536619-536622
Zornia setosa 536027

Common Name Cross Reference

Alfalfa	533624-533625,536014-536015,536526-536539	Field corn	535898-535931
Ambrette	536548	Flatpod peavine	533685-533686
Annual lespedeza	535811	Forgrass	535561-535562
Arabian scurfpea	535576-535578	French honeysuckle	535473,535583-535589
Asparagus	533599	Garden bean	533239-533452,533456-533590
Barley	533600,534503-534519,536543	Grass pea	533687
Barrelclover	535543-535554,535648-535652,535739,535752	Green amaranth	536438-536444
Bermudagrass	536028-536029	Hairy vetch	536638-536644
Birdsfoot trefoil	532939-532941	Harding grass	535560
Bitter vetch	533724	Hop	535808
Black bean	536540	Kenaf	532872-532874,532995-533000
Black medic	532942	Kodo	535938-535941,536032
Bluegrass	535819-535820	Lablab bean	536500-536509
Broadbean	532868,533725-533737	Large hop clover	535681
Broomcorn	535996-536006	Leadtree	536510
Buffelgrass	535462-535463	Lentil	532850,533688-533693
Bulbous canarygrass	535670	Lima bean	534913-534918,535338-535348
Buttonclover	535510-535518	Little burclover	535499-535508
Buttonclover medic	535628-535632	Maize	533626-533628,533658-533663
California burclover	535519-535532,535633-535636,535750-535751	Meadow bromegrass	536012-536013
Carrot	535882-535887	Medic	535555
Chickpea	533669-533684	Melon	534536-534538,534600-534605
Cigar flower	534731	Milfoil	532915
Clammy cuphea	534732	Milkvetch	535812-535815
Clover	535678-535680,535809	Millet	532958-532960
Common bean	534919-534926,535392-535403,536541	Mungbean	536545
Common oat	536045,536549,536612-536614	Musk okra	536432-536434
Common vetch	533738-533740	Naked oat	536615-536618
Common wheat	532891-532914,532994,534272-534502,535454,535766-535771	Okra	534520-534529,534573-534582,535943-535944
Corn	534659,536517-536520,536619-536622	Opium poppy	533722-533723
Corn poppy	533715-533721	Orchardgrass	535464-535467,535579,535742-535746
Cotton	533629-533652,536497-536498,536522-536525	Parsley	535895-535896
Cowpea	533009-533011	Peanut	535816-535817,536051-536312
Crambe	533664-533668	Pearl millet	535953-535957,536313-536428
Crested wheatgrass	536010	Pepper	532974-532993
Cucumber	534539-534545,535880-535881,536482	Perennial ryegrass	536017-536018,536631
Dry bean	536019	Pinto bean	536542
Eggplant	536035	Popcorn	533603
Elephant grass	535979-535983	Pot marigold	535879
European blue lupine	533708	Proso millet	536011
Fenugreek	532859-532867	Pumpkin	534557-534572,534620-534636,534638-534641,536483-536495

Red clover 532970-532972
 Redtop 532916
 Rice 532849, 536046-536047,
 536429-536431
 Rye 534927-535199, 535821
 Scarlet runner bean 535274-
 535280, 535282-535290
 Sesame 532845-532848
 Small burnet 535757
 Smilgrass 535556-535559,
 535657-535669, 535740, 535753-
 535756
 Snail medic 535641-535645
 Sorghum 532875-532890, 533606-
 533623, 533653, 533745-534167,
 535780-535806, 536016, 536511-
 536516, 536550-536611, 536632-
 536633
 Southern pea 535810
 Soybean 532833-532834, 533601-
 533602, 533604-533605, 533654-
 533657, 534645-534648, 535807,
 536009, 536521, 536546-536547,
 536635-536637
 Spinach 535897
 Spotted burclover 534168-
 534176
 Strawberry clover 535567-
 535570, 535687-535691
 Subterranean clover 535696-
 535734, 535758-535765
 Sudangrass 535772-535779
 Sugarbeet 535818, 535822-535846
 Sugarcane 532837-532838
 Summer squash 534551-534556,
 534613-534619
 Sunflower 534649-534658, 535888-
 535894, 536623-536630
 Sweet corn 535932
 Tall fescue 535582, 536634
 Tall wheatgrass 535580
 Tepary bean 533453-533455,
 535200-535235
 Tifton burclover 534235-534271
 Tobacco 532835-532836
 Tree alfalfa 535597
 Watermelon 534530-534535,
 534583-534599, 535947-535948,
 536445-536464, 536544
 Wheatgrass 535581
 White lupine 533694-533707
 White sweet clover 532943-
 532944
 Winter squash 534546-534550,
 534606-534612, 536496
 Yellow lupine 533711-533713
 Yellow sweet clover 532945-

Acronyms

For space conservation and consistency in identifying locations, the following acronyms have been used in Plant Inventory 198:

- CENARGEN - Centro Nacional de Recursos Geneticos (Brazil)
- CYMMYT - Centro Internacional de Mejoramiento de Maiz y Trigo (Mexico)
- CSIRO - Commonwealth Scientific and Industrial Research Organization (Australia)
- EMBRAPA - Empresa Brasileira de Pesquisas Agropecuarias (Brazil)
- FAO - Food and Agriculture Organization of the United Nations
- IBPGR - International Board for Plant Genetic Resources
- IRCT - Institut de recherches du coton et des textiles exotiques (France)
- ORSTOM - Office de la recherche scientifique et technique d'outre mer (France)
- USDA-ARS - U.S. Department of Agriculture - Agricultural Research Service
- USDA-SCS - U.S. Department of Agriculture - National Plant Materials Center
- VIR - N.I. Vavilov Institute of Plant Industry (Soviet Union)