Plant Inventory No. 197, Part I

Plant Materials Introduced January 1 to June 30, 1988 (Nos. 514276 to 520598)

United States Department of Agriculture
Agricultural Research Service
Plant Inventory
No. 197, Part I

Plant Materials Introduced
January 1 to June 30, 1988
(Nos. 514276 to 520598)
Plant Inventory No. 197 is divided into two parts that encompass PIs 514276 - 527506 for calendar year 1988. Questions about data organization and proper plant identification should be directed to the authors. This is not a listing of plant material for distribution.

Thanks are expressed to the following persons associated with the Plant Introduction Office for their contribution to Plant Inventory No. 197: L.G. Garner and R.A. Norris for continued excellence in handling all aspects of the computer system operation. Assistance by members of the Germplasm Resources Information Network (GRIN) with software and hardware problems is appreciated. Special thanks are extended to L.L. Jansen for his contributions in documenting data on the flax collection.

George A. White, agriculturalist
Plant Introduction Office
Beltsville Agricultural Research Center
Beltsville, MD 20705

and

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Department of Botany, University of Maryland
College Park, MD 20742

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ARS has no additional copies for free distribution.

Issued August 1989
PI 514276 to 514277. *Oryza sativa* L. POACEAE Rice

**Donated by:** Carnahan, H.L., Calif. Co-op. Rice Research Found., Inc., Rice Experiment Station, P.O. Box 306, Biggs, California, United States. Received January 13, 1988.

**PI 514276**
- **donor id:** M-203.
- **origin:** United States.
- **pedigree:** Pure line selection from X2 gen. of M-401 radiated seeds (25kr CO 60).
- **other id:** 86-Y-35.
- **other id:** GP-76.
- **group:** CSR-RICE.
- **remarks:** Premium quality medium-grain type. Susceptible to lodging and to blanking. Yield not as high as other similar varieties. Primary interest early maturity. Breeding Material. Seed.

**PI 514277**
- **donor id:** S-101.
- **origin:** United States.
- **pedigree:** 70-6526/R26/PI224656/3/M7/74-Y-89/SD7/73-221.
- **other id:** 85-Y-136.
- **other id:** GP-77.
- **group:** CSR-RICE.
- **remarks:** Short-grain, very early type. Plants 82cm high. Seedling vigor good. Leaves rough. Hulls rough. Awns present. 94 days to 50% heading. Lodging low (4%). Breeding Material. Seed.

PI 514278 to 514600. *Sorghum bicolor* (L.) Moench POACEAE Sorghum

**Donated by:** Clement, J., O.R.S.T.O.M., Paris, France; and Houdiard, P., O.R.S.T.O.M., Paris, France. **remarks:** Received through IBPGR, Rome, Italy. Received August 1982.

**PI 514278**
- **donor id:** Sg. 1657.
- **origin:** Senegal.
- **local name:** Fela.
- **collected:** 1976.
- **collector id:** SL 08.
- **other id:** NSL 167292.
- **locality:** Mbilior village.
- **remarks:** Race Durra. Days in growing cycle 90-100. Cultivated. Seed.

**PI 514279**
- **donor id:** Sg. 1658.
- **origin:** Senegal.
- **local name:** Fela.
- **collected:** 1976.
- **collector id:** SL 09.
- **other id:** NSL 167293.
- **locality:** Mbilior village.
- **remarks:** Race Durra. Days in growing cycle 90. Cultivated. Seed.

**PI 514280**
- **donor id:** Sg. 1659.
- **origin:** Senegal.
- **local name:** Fela.
- **collected:** 1976.
- **collector id:** SL 21.
- **other id:** NSL 167294.
- **locality:** Bokimedo village.
- **remarks:** Race Durra. Days in growing cycle 90-100. Cultivated. Seed.

**PI 514281**
- **donor id:** Sg. 1660.
- **origin:** Senegal.
- **local name:** Nieniko.
- **collected:** 1976.
- **collector id:** SL 22.
- **other id:** NSL 167529.
- **locality:** Bokimedo village.
- **remarks:** Race Guinea. Cultivated. Seed.
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<tr>
<th>Donor ID</th>
<th>Origin</th>
<th>Local Name</th>
<th>Collected</th>
<th>Collector ID</th>
<th>Other ID</th>
<th>Locality</th>
<th>Remarks</th>
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<td>Sg. 1665</td>
<td>Senegal</td>
<td>Fela</td>
<td>1976</td>
<td>SL 37</td>
<td>NSL 167296</td>
<td>Yare Lao village</td>
<td>Race Durra. Days in growing cycle 90-100. Cultivated. Seed.</td>
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PI 514327  
donor id: Sg. 1716.  
origin: Senegal.  
local name: Fela.  
collected: 1976.  
collector id: SL 135.  
other id: NSL 167303.  
locality: Ogo village.  
remarks: Race Durra.  
Days in growing cycle 110-120.  
Cultivated.  
Seed.

PI 514328  
donor id: Sg. 1717.  
origin: Senegal.  
local name: Fela.  
collected: 1976.  
collector id: SL 136.  
other id: NSL 167304.  
locality: Ogo village.  
remarks: Race Durra.  
Days in growing cycle 120-130.  
Cultivated.  
Seed.

PI 514329  
donor id: Sg. 1718.  
origin: Senegal.  
local name: Nieniko.  
collected: 1976.  
collector id: SL 137.  
other id: NSL 167567.  
locality: Navel village.  
remarks: Race Guinea.  
Days in growing cycle 90-100.  
Cultivated.  
Seed.

PI 514330  
donor id: Sg. 1719.  
origin: Senegal.  
local name: Same.  
collected: 1976.  
collector id: SL 138.  
other id: NSL 167305.  
locality: Navel village.  
remarks: Race Durra.  
Days in growing cycle 120-130.  
Cultivated.  
Seed.

PI 514331  
donor id: Sg. 1720.  
origin: Senegal.  
local name: Nieniko.  
collected: 1976.  
collector id: SL 142.  
other id: NSL 167568.  
locality: Ranerou village.  
remarks: Race Guinea.  
Days in growing cycle 110-120.  
Cultivated.  
Seed.

PI 514332  
donor id: Sg. 1721.  
origin: Senegal.  
local name: Bassi.  
collected: 1976.  
collector id: SL 145.  
other id: NSL 167569.  
locality: Boulal village.  
remarks: Race Guinea.  
Days in growing cycle 110-120.  
Cultivated.  
Seed.

PI 514333  
donor id: Sg. 1723.  
origin: Senegal.  
local name: Bassi.  
collected: 1976.  
collector id: SL 161.  
other id: NSL 167570.  
locality: Ndiamane village.  
remarks: Race Guinea.  
Days in growing cycle 130-150.  
Cultivated.  
Seed.

PI 514334  
donor id: Sg. 1729.  
origin: Senegal.  
local name: Bassi Bambara.  
collected: 1976.  
collector id: SL 179.  
other id: NSL 167571.  
locality: Touba - Kouta village.  
remarks: Race Guinea.  
Days in growing cycle 100-110.  
Cultivated.  
Seed.

PI 514335  
donor id: Sg. 1730.  
origin: Senegal.  
local name: Bassi.  
collected: 1976.  
collector id: SL 180.  
other id: NSL 167572.  
locality: Touba - Kouta village.  
remarks: Race Guinea.  
Days in growing cycle 110-120.  
Cultivated.  
Seed.
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**PI 514345**

**PI 514346**

**PI 514347**

**PI 514348**

**PI 514349**

**PI 514350**

**PI 514351**

**PI 514352**


PI 514362  donor id: Sg. 1766.  origin: Senegal.  local name: Bassi.  

PI 514363  donor id: Sg. 1767.  origin: Senegal.  local name: Bassi.  

PI 514364  donor id: Sg. 1773.  origin: Senegal.  local name: Bassi.  

PI 514365  donor id: Sg. 1768.  origin: Senegal.  local name: Bassi Yama.  

PI 514366  donor id: Sg. 1769.  origin: Senegal.  local name: Congossane.  

PI 514367  donor id: Sg. 1770.  origin: Senegal.  local name: Fela.  

PI 514368  donor id: Sg. 1771.  origin: Senegal.  local name: Bassi.  

PI 514369  donor id: Sg. 1772.  origin: Senegal.  local name: Bassi.  

PI 514370  donor id: Sg. 1774.  origin: Senegal.  local name: Bassi.  


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<td>Sg. 1919</td>
<td>Senegal</td>
<td>Sambadyabo</td>
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<td>Tiankoje village</td>
<td>Race Guinea. Days in growing cycle 120. Cultivated. Seed.</td>
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</table>


PI 514278 to 514600—continued


PI 514278 to 514600-continued


PI 514278 to 514600-continued


PI 514601 to 514617. Sorghum sp. POACEAE

**Donated by:** Clement, J., O.R.S.T.O.M., Paris, France; and Houdiard, P., O.R.S.T.O.M., Paris, France. **remarks:** Received through IBPGR, Rome, Italy. Received August 1982.

**PI 514601**

**PI 514602**

**PI 514603**

**PI 514604**

**PI 514605**

**PI 514606**

**PI 514607**

**PI 514608**

**PI 514609**

**PI 514610**
PI 514611 donor id: Sg. 1932. origin: Senegal. local name: Mobal.

PI 514612 donor id: Sg. 1929. origin: Senegal. local name: Mobal.

PI 514613 donor id: Sg. 1934. origin: Senegal. local name: Mobal.


PI 514618 to 514632. Carthamus tinctorius L. ASTERACEAE Safflower

Donated by: Li, Dajue, Hortus Botanicus Pekinensis, Institut Botanici Academiae Sinicae, Xiangshan, Beijing, China. remarks: Received through P.F. Knowles. Received December 21, 1987.

PI 514618 origin: China, Peoples Repub of. cultivar: CHONGQING. Cultivar. Seed.

PI 514619 origin: China, Peoples Repub of. cultivar: FUYANG. Cultivar. Seed.

PI 514620 origin: China, Peoples Repub of. cultivar: HUAXIAN. Cultivar. Seed.

PI 514621 origin: China, Peoples Repub of. cultivar: PAIXIAN. Cultivar. Seed.
PI 514618 to 514632-continued

PI 514622 origin: China, Peoples Repub of. cultivar: RUDONG. Cultivar. Seed.
PI 514623 origin: China, Peoples Repub of. cultivar: RUICHENG. Cultivar. Seed.
PI 514624 origin: China, Peoples Repub of. cultivar: SHUFU. Cultivar. Seed.
PI 514625 origin: China, Peoples Repub of. cultivar: TAIXING. Cultivar. Seed.
PI 514626 origin: China, Peoples Repub of. cultivar: XI AN. Cultivar. Seed.
PI 514627 origin: China, Peoples Repub of. cultivar: XICHANG. Cultivar. Seed.
PI 514628 origin: China, Peoples Repub of. cultivar: YANJIN. Cultivar. Seed.
PI 514629 origin: China, Peoples Repub of. cultivar: YANLING. Cultivar. Seed.
PI 514630 origin: China, Peoples Repub of. cultivar: YUHUAN. Cultivar. Seed.
PI 514631 origin: China, Peoples Repub of. cultivar: YUYAO. Cultivar. Seed.
PI 514632 origin: China, Peoples Repub of. cultivar: ZIYANG. Cultivar. Seed.

PI 514633 to 514643. Festuca arundinacea Schreber POACEAE Tall fescue

Donated by: Powell, J.B., Field Crops Laboratory, USDA-ARS, Beltsville, Maryland, United States. Received January 1984.


PI 514644 to 514648. Lycopersicon esculentum Miller SOLANACEAE Tomato

Donated by: Michalska, A.M., Stacja Hodowli Roslin, Ogrodniczych Ulrichow, Gorczewska 124, 01-460, Warsaw, Poland. remarks: Received through T.H. Barksdale, Vegetable Lab., USDA-ARS, Beltsville, Maryland. Received December 09, 1987.


PI 514645 donor id: ALFA. origin: Poland. remarks: Highly parthenocarpic. Matures a few days later than PI 514644. Plants determinate with green fruit shoulders (u+). Cultivated. Seed.
PI 514646  

PI 514647  

PI 514648  

PI 514649 to 514650. Crambe abyssinica Hochst. ex R. E. Fries  
BRASSICACEAE  Crambe

Donated by: Lessman, K.J., Department of Agronomy, Purdue University, Life Science Building, West Lafayette, Indiana, United States. Received July 1987.

PI 514649  

PI 514650  

PI 514651 to 514670. Oryza sativa L. POACEAE  Rice

Donated by: Okuno, K., Hokuriku National Agricultural Exp. Sta., Inada, Joetsu-shi, Niigata-ken 943-01, Japan. remarks: Received through quarantine increase by D.E. Groth. Disease resistance based on 0-9 scale with 0 being immune. Received December 18, 1987.


PI 514666  
origin: Japan.  
cultivar: SACHIMINORI.  
other id: DG860424.  
source: D.E. Groth, LSU Rice Research Staton, Crowley, Louisiana.  
remarks: Plants 95cm tall. Grain medium type.  
Cultivar. Seed.

PI 514667  
origin: Japan.  
cultivar: SASANISHIKI.  
other id: DG860425.  
source: D.E. Groth, LSU Rice Research Staton, Crowley, Louisiana.  
remarks: Plants 95cm tall. Grain medium type.  
Cultivar. Seed.

PI 514668  
origin: Japan.  
cultivar: TODOROKIWASE.  
other id: DG860426.  
source: D.E. Groth, LSU Rice Research Staton, Crowley, Louisiana.  
remarks: Plants 90cm tall. Grain medium type.  
Cultivar. Seed.

PI 514669  
origin: Japan.  
cultivar: TOYAMANISHIKI.  
other id: DG860427.  
source: D.E. Groth, LSU Rice Research Staton, Crowley, Louisiana.  
remarks: Plants 95cm tall. Grain medium type.  
Cultivar. Seed.

PI 514670  
origin: Japan.  
cultivar: TOYONISHIKI.  
other id: DG860428.  
source: D.E. Groth, LSU Rice Research Staton, Crowley, Louisiana.  
remarks: Plants 100cm tall. Grain medium type.  
Cultivar. Seed.

PI 514671 to 514672. Glycine max (L.) Merr. FABACEAE  Soybean


PI 514671  
origin: China, Peoples Repub of.  
cultivar: FENGSHOU 7.  
Cultivar. Seed.

PI 514672  
origin: China, Peoples Repub of.  
cultivar: HEIHE 54.  
Cultivar. Seed.
PI 514673. Sorghastrum nutans (L.) Nash  POACEAE  Indiangrass

**Donated by:** Owsley, C., Americus Plant Materials Center, USDA-SCS, Rt. 6, Box 417, Morris Dr., Americus, Georgia, United States.

**remarks:** Received through NPMC, Beltsville, MD. Received December 30, 1987.

**donor id:** Sonu 2.  **origin:** United States.  **pedigree:** Seed composite of accessions 9021211, 9021207, 9023089, and 9021345.  **locality:** Barbour Co., AL; Sumter Co., GA; Houston Co., AL; Terrell Co., GA.  **remarks:** Plants erect.  Rhizomes short. Growth, vigor, adaptability and stand good. Susceptible to rust in humid weather. Mature seed late October, early November. Can be used for conversion of marginal cropland for pasture and hay production. Adaptable to Southeast US.  **insect resistance:** Good.  **Perennial. Cultivated. Seed.**

PI 514674. Glycine soja Siebold & Zucc.  FABACEAE  Wild soybean

**Donated by:** Tanimura, Y., Hokkaido Pref. Plant Genetic Resour. Ctr, Minami-Takinokawa, Takikawa, Hokkaido, Japan. Received January 06, 1988.

**origin:** Japan.  **collected:** 1987.  **collector:** Y. Tanimura.  **other id:** C-21412.  **locality:** Near Amanogawa River, southern Hokkaido.  **Wild. Seed.**

PI 514675. Amorpha canescens Pursh  FABACEAE  Leadplant

**Donated by:** Fine, G., Manhattan Plant Materials Center, USDA-SCS, 3800 South 20th Street, Manhattan, Kansas, United States.  **remarks:** Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 06, 1988.

**donor id:** 9049944.  **origin:** United States.  **pedigree:** Composite of accessions 9013351, 9013344, 9013354, 9017622.  **locality:** Composite of samples from Comanche and Saline Counties, Kansas; Washita and Stephens Counties, Oklahoma.  **remarks:** Subshrub, erect, 0.3-1m tall. Roots deep, penetrating. Stem under surface of leaves, and calyces densely wooly. Inflorescence many flowered, spike-like raceme. Flowers tiny, purple, one-petaled. Highly palatable. Adapted to upland prairie soils in Kansas and Oklahoma and probably extends through Nebraska and east to central Missouri. Drought tolerance.  Breeding Material.  **Seed.**
PI 514676. Ceanothus herbaceus var. pubescens (Torrey & A. Gray ex S. Watson) Shinn. RHAMNACEAE New Jersey tea

Donated by: Fine, G., Manhattan Plant Materials Center, USDA-SCS, 3800 South 20th Street, Manhattan, Kansas, United States. remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 06, 1988.

donor id: 9049952. origin: United States. pedigree: Composite of accessions 9013414 and 421286. locality: Composite of samples from Osborne and Wabaunsee Counties, Kansas. remarks: Subshrub, 1 m tall. Branches ligneous, upright, slender, puberulent or pilose. Leaves oblong-elliptic or lance oblong to oblanceolate 2-6cm long, blunt to subacute, crevate- serrate with young teeth gland tipped, 1-2.5cm wide. Upper surface glabrescent. Lower surface villous. Adapted to sandy or rocky plains, prairies & slopes of east Kansas & Nebraska extending to western Iowa & Missouri & part of Oklahoma. Drought tolerance. Cultivated. Seed.

PI 514677. Prunus americana Marshall ROSACEAE American plum

Donated by: Fine, G., Manhattan Plant Materials Center, USDA-SCS, 3800 South 20th Street, Manhattan, Kansas, United States. remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 06, 1988.


PI 514678 to 514721. Zea mays L. POACEAE Corn


PI 514678 to 514721-continued


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<th>Status</th>
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<td>PI 514699</td>
<td>Choco 416</td>
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<td>Choco 422</td>
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<td>PI 514701</td>
<td>Chococeno Blco. Hso.</td>
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<td>Clavo-Andaqui</td>
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PI 514678 to 514721—continued


PI 514722 to 515134. Zea mays L. POACEAE Corn


PI 514722 to 515134-continued

PI 514754  donor id: Ancash 64.  origin: Peru.  Cultivated.  Seed.
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PI 514722 to 515134-continued

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PI 514878  donor id: Cajamarca 125. origin: Peru.  Cultivated.
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PI 514884  donor id: Cajamarca 204. origin: Peru.  Cultivated.
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PI 514887  donor id: Cajamarca 207. origin: Peru.  Cultivated.
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PI 514722 to 515134-continued

PI 514722 to 515134—continued

PI 514941  donor id: Ica  44.  origin: Peru.  Cultivated.  Seed.
PI 514722 to 515134-continued

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PI 514961 donor id: Junin 244. origin: Peru. Cultivated. Seed.
PI 514722 to 515134-continued

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PI 514722 to 515134-continued

PI 514722 to 515134—continued

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PI 514722 to 515134—continued

PI 515118  donor id: Tacna 60. origin: Peru. Cultivated. Seed.
PI 514722 to 515134—continued


PI 515135 to 515579.  Zea mays L.  POACEAE  Corn


PI 515135 to 515579—continued


PI 515160 donor id: Chiapas 748. origin: Mexico. Cultivated. Seed.
PI 515135 to 515579—continued

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PI 515183  donor id: Coahuila 41.  origin: Mexico.  Cultivated.
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PI 515135 to 515579—continued

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PI 515212  donor id: Guanajuato 135. origin: Mexico. Cultivated.
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PI 515215  donor id: Guanajuato 152. origin: Mexico. Cultivated.
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PI 515217  donor id: Guanajuato 171. origin: Mexico. Cultivated.
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PI 515222  donor id: Guanajuato 201. origin: Mexico. Cultivated.
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PI 515224  donor id: Guanajuato 211. origin: Mexico. Cultivated.
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PI 515135 to 515579—continued

PI 515135 to 515579-continued

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PI 515135 to 515579-continued

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PI 515348  donor id: Nayarit 118. origin: Mexico. Cultivated.
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PI 515349  donor id: Nayarit 121. origin: Mexico. Cultivated.
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PI 515396 donor id: Oaxaca 120. origin: Mexico. Cultivated. Seed.
PI 515135 to 515579-continued

PI 515404  donor id: Puebla 64. origin: Mexico. Cultivated. Seed.
PI 515135 to 515579-continued

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PI 515417  donor id: Puebla 166.  origin: Mexico.  Cultivated.
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            Seed.
PI 515419  donor id: Puebla 175.  origin: Mexico.  Cultivated.
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            Seed.
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PI 515423  donor id: Puebla 204.  origin: Mexico.  Cultivated.
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            Seed.
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            Seed.
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PI 515135 to 515579—continued


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PI 515135 to 515579-continued

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PI 515501  donor id: Tlaxcala  44.  origin: Mexico.  Cultivated.
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PI 515502  donor id: Tlaxcala  47.  origin: Mexico.  Cultivated.
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PI 515504  donor id: Tlaxcala  54.  origin: Mexico.  Cultivated.
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PI 515506  donor id: Tlaxcala  64.  origin: Mexico.  Cultivated.
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PI 515507  donor id: Tlaxcala  70.  origin: Mexico.  Cultivated.
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PI 515508  donor id: Tlaxcala  73.  origin: Mexico.  Cultivated.
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PI 515509  donor id: Tlaxcala  87.  origin: Mexico.  Cultivated.
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PI 515510  donor id: Tlaxcala  96.  origin: Mexico.  Cultivated.
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PI 515511  donor id: Tlaxcala 103.  origin: Mexico.  Cultivated.
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           Seed.
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PI 515515  donor id: Tlaxcala 141.  origin: Mexico.  Cultivated.
           Seed.
PI 515135 to 515579-continued

PI 515526  donor id: Tlaxcala 244.  origin: Mexico.  Cultivated.  Seed.
PI 515135 to 515579-continued

            Seed.

PI 515534  donor id: Veracruz  75.  origin: Mexico. Cultivated.
            Seed.

            Seed.

PI 515536  donor id: Veracruz  89.  origin: Mexico. Cultivated.
            Seed.

PI 515537  donor id: Veracruz  95.  origin: Mexico. Cultivated.
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            Seed.

            Seed.

            Seed.

            Seed.

            Seed.

PI 515543  donor id: Veracruz 133. origin: Mexico. Cultivated.
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            Seed.

PI 515545  donor id: Veracruz 324. origin: Mexico. Cultivated.
            Seed.

            Seed.

PI 515547  donor id: Veracruz 381. origin: Mexico. Cultivated.
            Seed.

            Seed.

PI 515549  donor id: Veracruz 582. origin: Mexico. Cultivated.
            Seed.
PI 515135 to 515579-continued


PI 515135 to 515579-continued


PI 515580 to 515909. Sorghum bicolor (L.) Moench POACEAE Sorghum


PI 515580 to 515909-continued


PI 515611  donor id: Sg. 3473.  origin: Togo.  local name: Demoni.  
collected: 1977.  collector id: TO 56.  other id: NSL 167862.  
locality: Bogou village.  remarks: Growing season 180 days. Race Guinea.  
Cultivated.  Seed.

PI 515612  donor id: Sg. 3474.  origin: Togo.  local name: Kalanfei.  
collected: 1977.  collector id: TO 57.  other id: NSL 167863.  
locality: Bogou village.  remarks: Growing season 150 days. Race Guinea.  
Cultivated.  Seed.

PI 515613  donor id: Sg. 3475.  origin: Togo.  local name: Belogo.  
collected: 1977.  collector id: TO 58.  other id: NSL 167864.  
locality: Bogou village.  remarks: Growing season 180 days. Race Guinea.  
Cultivated.  Seed.

PI 515614  donor id: Sg. 3476.  origin: Togo.  local name: Song.  
collected: 1977.  collector id: TO 59.  other id: NSL 169275.  
locality: Bogou village.  remarks: Growing season 90 days. Race Durra Guinea.  
Cultivated.  Seed.

PI 515615  donor id: Sg. 3477.  origin: Togo.  local name: Soak.  
collected: 1977.  collector id: TO 60.  other id: NSL 167865.  
locality: Bogou village.  remarks: Growing season 150 days. Race Guinea.  
Cultivated.  Seed.

PI 515616  donor id: Sg. 3478.  origin: Togo.  local name: Linkpatou.  
collected: 1977.  collector id: TO 61.  other id: NSL 167866.  
locality: Bogou village.  remarks: Growing season 150 days. Race Guinea.  
Cultivated.  Seed.

PI 515617  donor id: Sg. 3479.  origin: Togo.  local name: Demoni.  
collected: 1977.  collector id: TO 64.  other id: NSL 167867.  
locality: Logpanou village.  remarks: Growing season 180 days. Race Guinea.  
Cultivated.  Seed.

PI 515618  donor id: Sg. 3480.  origin: Togo.  local name: Belogo.  
collected: 1977.  collector id: TO 65.  other id: NSL 167868.  
locality: Logpanou village.  remarks: Growing season 180 days. Race Guinea.  
Cultivated.  Seed.

PI 515619  donor id: Sg. 3481.  origin: Togo.  local name: Didjack.  
collected: 1977.  collector id: TO 66.  other id: NSL 167869.  
locality: Logpanou village.  remarks: Growing season 150 days. Race Guinea.  
Cultivated.  Seed.

PI 515620  donor id: Sg. 3482.  origin: Togo.  local name: Tampoir.  
collected: 1977.  collector id: TO 67.  other id: NSL 167870.  
locality: Logpanou village.  remarks: Growing season 150 days. Race Guinea.  
Cultivated.  Seed.


PI 515580 to 515909-continued


PI 515580 to 515909—continued


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PI 515580 to 515909-continued


PI 515851  
donor id: Sg. 3747. origin: Togo. local name: Mbome. 

PI 515852  

PI 515853  

PI 515854  

PI 515855  

PI 515856  

PI 515857  

PI 515858  


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PI 515910 to 515918. Sorghum sp. POACEAE


PI 515919. Solanum tuberosum L. SOLANACEAE Potato


PI 515920. Solanum tuberosum L. SOLANACEAE Potato

Donated by: Lekhnovitch, V.S., Dept. of Tuberiferous Plants, VIR, 44 Herzen Street, Leningrad, Soviet Union. Received April 5, 1984.

PI 515921. Solanum tuberosum L. SOLANACEAE Potato

**Donated by:** Bloecher, U., 852 Magnolia Street, St. Paul, Minnesota, United States. Received April 5, 1984.

origin: Germany, Federal Rep of. **cultivar:** GRANOLA.
**other id:** Q 26239A. Cultivar. Tuber.

PI 515922 to 515947. Avena sativa L. POACEAE Common oat


PI 515922 **donor id:** PA 8196-1334. **origin:** United States. **pedigree:** Larry/Orbit. **other id:** Cross No. XK78G178. **remarks:** Plants medium-short. Maturity intermediate. Yield high. Test weight good. Breeding Material. Seed.

PI 515923 **donor id:** PA 8290-5739. **origin:** United States. **pedigree:** PA 7628-1182(Otee/Noble)/Ogle. **other id:** Cross No. XK78G201. **remarks:** Plants medium-tall. Maturity early. Yield good. Breeding Material. Seed.

PI 515924 **donor id:** PA 8290-7026. **origin:** United States. **pedigree:** PA 7733-1399(Astro/Stout)/Larry. **other id:** Cross No. XK78G170. **remarks:** Plants tall. Maturity early. Straw very stiff. Yield excellent. Breeding Material. Seed.

PI 515925 **donor id:** PA 8290-9301. **origin:** United States. **pedigree:** PA 7733-2638(Ed 26/Noble)/Ogle. **other id:** Cross No. XV78G208. **remarks:** Plants very short. Maturity late. Yield good. Breeding Material. Seed.

PI 515926 **donor id:** PA 8393-1500. **origin:** United States. **pedigree:** Astro/Noble. **other id:** Cross No. XW74G55. **remarks:** Plants medium-tall. Maturity late. Test weight high. Kernels white. Breeding Material. Seed.

PI 515927 **donor id:** PA 8393-11138. **origin:** United States. **pedigree:** PA 7527-1070/IL 69-7648. **other id:** Cross No. XK77G163. **remarks:** Plants tall. Maturity late. Test weight high. Kernels excellent. Breeding Material. Seed.

PI 515928 **donor id:** PA 8393-15040. **origin:** United States. **pedigree:** Pennlo/79G252-1(Ed 26/Noble). **other id:** Cross No. XK80G131. **remarks:** Plants very short. Maturity intermediate. Straw stiff. Breeding Material. Seed.
PI 515929  donor id: PA 8393-15050.  origin: United States.  

PI 515930  donor id: PA 8393-17361.  origin: United States.  


PI 515932  donor id: PA 8494-4099.  origin: United States.  

PI 515933  donor id: PA 8494-5426.  origin: United States.  

PI 515934  donor id: PA 8494-11717.  origin: United States.  

PI 515935  donor id: PA 8494-13450.  origin: United States.  


PI 515922 to 515947-continued

PI 515938  
donor id: PA 8499-1876.  
origin: United States.  
pedigree: PA 7733-2638(Ed 26/Noble)/Larry.  
other id: Cross No. XK78G203.  
remarks: Plants very short.  
Maturity late.  
Yield high.  
Breeding Material.  
Seed.

PI 515939  
donor id: PA 8598-18.  
origin: United States.  
pedigree: PA 7850-24(Noble/Can Dwf)/Lang.  
other id: Cross No. XG79G279.  
remarks: Plants very short.  
Maturity late.  
Carries Dw-6 gene.  
Breeding Material.  
Seed.

PI 515940  
donor id: PA 8598-6065.  
origin: United States.  
pedigree: Oxford/PA 7628-698(Ed 26/Noble).  
other id: Cross No. XH81G1.  
remarks: Plants medium short.  
Maturity intermediate.  
Kernels white, good.  
Breeding Material.  
Seed.

PI 515941  
donor id: PA 8598-6290.  
origin: United States.  
pedigree: PA 7733-648(Ed 26/Otee)/79G252-1(Ed 26/Noble).  
other id: Cross No. XM80G18.  
remarks: Plants short.  
Maturity late.  
Kernels excellent.  
Test weight very high.  
Breeding Material.  
Seed.

PI 515942  
donor id: PA 8598-7240.  
origin: United States.  
pedigree: PA 7836-2332(Otee/Noble)/Pennlo.  
other id: Cross No. XK80G205.  
remarks: Plants very short.  
Straw stiff.  
Kernels excellent.  
Breeding Material.  
Seed.

PI 515943  
donor id: PA 8598-7320.  
origin: United States.  
pedigree: PA 7836-4831(Dal/Noble)/Pennlo.  
other id: Cross No. XK80G5.  
remarks: Plants short.  
Maturity intermediate.  
Kernels and groat good.  
Leaf retention excellent.  
Breeding Material.  
Seed.

PI 515944  
donor id: PA 8598-8240.  
origin: United States.  
pedigree: PA 7836-61(PA Comp 24 Seln.)/Pennline 6571.  
other id: Cross No. XH80G138.  
remarks: Plants short.  
Yield and test weight good.  
Breeding Material.  
Seed.

PI 515945  
donor id: PA 8598-8480.  
origin: United States.  
pedigree: PA 7836-1671(Astro/Noble)/PA 7733-2112(NY Comp).  
other id: Cross No. XK80G247.  
remarks: Plants very short.  
Maturity late.  
Yield excellent.  
Breeding Material.  
Seed.

PI 515946  
donor id: PA 8598-8750.  
origin: United States.  
pedigree: Pennline 6571/PA 7628-698(Ed 26/Noble).  
other id: Cross No. XK81G26.  
remarks: Plants short.  
Maturity very early.  
Leaf retention excellent.  
Breeding Material.  
Seed.
PI 515922 to 515947-continued

PI 515947  
donor id: PA 8598-11655.  
origin: United States.  
pedigree: PA 7967-6689(Ed 26/Noble)/PA 7733-648(Ed 26/Otee).  
other id: Cross No. XH81G39.  

PI 515948. Panicum amarum Ell.  
POACEAE  Bitter panicgrass

Donated by: Yohn, H.E., Cape May Plant Materials Center, USDA-SCS, 1536 Route 9N, Cape May Court House, New Jersey, United States.  
remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 12, 1988.

donor id: 9039029.  
origin: United States.  
collected: October 1983.  
collector: Salva; Graetz.  
other id: T-39029.  
other id: MLRA: 153B.  
locality: Dune, Fort Macon State Park, Carteret County.  
latitude: 34 deg. 40 min. N.  
longitude: 77 deg. 00 min. W.  

PI 515949. Prunus maritima Marshall  
ROSACEAE  Beach plum

Donated by: Yohn, H.E., Cape May Plant Materials Center, USDA-SCS, 1536 Route 9N, Cape May Court House, New Jersey, United States.  
remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 12, 1988.

donor id: 9011251.  
origin: United States.  
collected: October 1979.  
other id: T-11251.  
other id: MLRA: 153.  
other id: CN-00252.  
locality: Colonies, E of Rt. 1, S of Nomad village, 2.5km S of Indian River Inlet Bridge, Sussex County.  
latitude: 38 deg. 35 min. N.  
longitude: 75 deg. 05 min. W.  
remarks: Shrub, densely branched, 0.6-2.1m. Shape variable from low to straggling to ascending. Flowers white, 1.25cm diameter. Fruit blue-purple, 1.90cm diameter. Sand stabilizing plant and possible source of wildlife food. Adapted to sandy soils of Atlantic coastal plain from New England to Maryland. Precipitation 1143mm. Associated with seaside goldenrod (Solidago sempervirens). Breeding Material. Seed.
PI 515950. Rosa rugosa Thunb. ROSACEAE Rugosa rose

Donated by: Hamer, D., Cape May Plant Materials Center, USDA-SCS, 1536 Route 9N, Cape May Court House, New Jersey, United States.
remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 12, 1988.

origin: United States. remarks: Shrub multi- branched, erect to 1.5m. Stems thick with many thorns. Leaves dark green, compound with fine leaflets. Flowers red or white-purple, 5.0-7.6cm diameter. Fruit red, small 1.2-3.89cm diameter. Spreads by underground stems and produces colony effect in a few yrs. Intended use in climax vegetation for stabilization of back dune areas and possible wildlife habitat. Adapted to sandy soils throughout NE US. Perennial. Breeding Material. Seed.

PI 515951. Triticum aestivum L. POACEAE Common wheat

Donated by: Lafever, H.N., Department of Agronomy, Ohio State University, 1680 Madison Avenue, Wooster, Ohio, United States. Received January 13, 1988.


PI 515952. Medicago monantha (C. Meyer) Trautv. FABACEAE


PI 515953. Trigonella foenum-graecum L. FABACEAE Fenugreek

PI 515953-continued

collector: W.J. Kaiser. locality: Southwest, near
Dezful. elevation: 50m. remarks: Plant upright. Seeds
used as a spice. Cultivated. Seed.

PI 515954. Medicago sativa L. FABACEAE Alfalfa

Donated by: Barnes, D.K., USDA-ARS, Dept. of Agronomy and Plant
Genetics, University of Minnesota, St. Paul, Minnesota, United
States. remarks: Cooperative investigations between USDA-ARS and
the Minnesota Agriculture Experiment Station. Received February 10,

donor id: MNUCXSW. origin: United States. cultivar:
NITRO. pedigree: Synthetic of estimated 5% Chilean, 5%
Peruvian, 35% Indian, and 55% African. other id: MN5887.
other id: CV-153. source: Crop Sci. 28(4):0718. group:
CSR-ALFALFA. remarks: Nonwinterhardy, special purpose
type for 1-year hay and fall green manure crop. Selected
for specialized nitrogen accumulation attributes. Yield
of fixed N from fall plow- down high. Susceptible to
anthracnose, bacterial and verticillium wilts, and blue
alfalfa aphid. Fall leaf disease resistance in the upper
midwest improved compared to most other non-dormant
types. disease resistance: Phytophthora root rot, high
to Fusarium wilt. insect resistance: Oklahoma biotypes
of spotted alfalfa aphid. High to pea aphid. Cultivar.
Seed.

PI 515955 to 515958. Medicago sativa L. FABACEAE Alfalfa

Donated by: Barnes, D.K., USDA-ARS, Dept. of Agronomy and Plant
Genetics, University of Minnesota, St. Paul, Minnesota, United
States. remarks: Cooperative investigations between USDA-ARS and
the Minnesota Agriculture Experiment Station. Received February 10,

PI 515955

 donor id: MN NN-1008. origin: United States. pedigree:
Selection from germplasm pool MN NC. other id: GP-203.
source: Crop Sci. 28(4):0721. group: CSR-ALFALFA.
remarks: Non-nodulating type for use as a control and
research on nodule development. Non-nodulation trait
conditioned by the genes nn1 and nn2. Breeding Material.
Seed.
PI 515955 to 515958—continued


PI 515959. Amaranthus cruentus L.  AMARANTHACEAE  Purple amaranth

Donated by: Schaeffer, J.R., Dept. of Plant and Soil Science, Montana State University, Bozeman, Montana, United States. Received March 28, 1988.


PI 515960. Glycine max (L.) Merr.  FABACEAE  Soybean

Donated by: Hartwig, E.E., USDA-ARS, Delta States Research Center, P.O. Box 196, Stoneville, Mississippi, United States. remarks: Joint contribution from USDA-ARS and Delta Branch, Miss. Agric. & Forestry Exp. Station. Received February 10, 1988.
PI 515960-continued


PI 515961. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Pfeiffer, T.W., Dept. of Agronomy, University of Kentucky, Lexington, Kentucky, United States; and Orf, J.H., Dept. of Agronomy and Plant Genetics, University of Minnesota, St. Paul, Minnesota, United States. Received February 10, 1988.


PI 515962 to 515965. Beta vulgaris L. CHENOPODIACEAE Sugarbeet


PI 515966 to 515967. Hordeum vulgare L. POACEAE Barley

Donated by: Hockett, E.A., USDA-ARS, Dept. of Plant and Soil Science, Montana State University, Bozeman, Montana, United States; and Carroll, T.W.; Zaske, S.K., Dept. of Plant Pathology, Montana State University, Bozeman, Montana, United States. remarks: Cooperative investigations by USDA-ARS and the Montana Agricultural Experiment Station. Received February 10, 1988.
PI 515966 to 515967-continued


PI 515967  donor id: Composite Cross XXXI-B.  origin: United States.  

PI 515968. Astragalus membranaceus (Fischer ex Link) Bunge  FABACEAE

  Donated by: Chung, G.S., Yeongnam Crop Experiment Station, Rural Development Administration, P.O. Box 6, Milyang, Republic of Korea. Received December 29, 1987.


PI 515969. Lens culinaris Medikus  FABACEAE  Lentil


PI 515970. Triticum aestivum L.  POACEAE  Common wheat

  Donated by: Bacon, R., Department of Agronomy, University of Arkansas, 115 Plant Science Building, Fayetteville, Arkansas, United States. Received January 27, 1988.
PI 515970-continued


PI 515971. Allium sativum L. LILIACEAE Garlic

Donated by: Ross, W., Good Seed Co., P.O. Box 702, Tonasket, Washington, United States. remarks: Received through R.M. Hannan, Western Regional Plant Introduction Station, Pullman, Washington. Received February 01, 1988.


PI 515972 to 515973. Allium sativum L. LILIACEAE Garlic


PI 515974 to 515976. Allium sativum L. LILIACEAE Garlic

Donated by: Piedmont, D., Holley, New York, United States. remarks: Received through R.M. Hannan, Western Regional Plant Introduction Station, Pullman, Washington. Received February 01, 1988.
PI 515974 to 515976-continued

PI 515974  **origin:** United States.  **local name:** Oswego white.  
**remarks:** Bulbs large, white-skinned. No scape. Received September 1984.  **cold tolerance:** Very winter hardy. Cultivated. Bulbs.

PI 515975  **origin:** United States.  **local name:** Mexican red.  
**remarks:** Received September 1984. Cultivated. Bulbs.

PI 515976  **origin:** United States.  **local name:** Sicilian red.  
**remarks:** Bulbs medium. Plants produce inflorescence. Received September, 1984.  **cold tolerance:** Winter hardy in northern climates. Cultivated. Bulbs.

PI 515977.  **Salix hookeriana** J. Barratt  **SALICACEAE**

**Donated by:** Rosemoor Garden Trust, Torrington, Devon, England.  
Received January 1985.

**origin:** United Kingdom.  **other id:** Q23000.  **other id:** NA 50315. Cultivated. Plant.

PI 515978 to 515983.  **Vicia ervilia** (L.) Willd.  **FABACEAE** Bitter vetch

**Donated by:** Muehlbauer, F.J., USDA-ARS, Department of Agronomy & Soils, Washington State University, Pullman, Washington, United States; and Kaiser, W.J., Western Regional P.I. Station, Washington State University, Pullman, Washington, United States. Received February 01, 1988.

PI 515978  **donor id:** 290685-04.  **origin:** Turkey.  **local name:** Burcak.  **collected:** June 29, 1985.  **locality:** Field in piles on red rocky soil, 16km N of Yayladagi on road to Antakya.  **elevation:** 990m. Cultivated. Seed.

PI 515979  **donor id:** 300685-04.  **origin:** Turkey.  **collected:** June 30, 1985.  **locality:** Martavan, on road to Gaziantep.  **elevation:** 710m.  **remarks:** Mixed with V. sativum. Cultivated. Seed.

PI 515980  **donor id:** 100785-0303.  **origin:** Turkey.  **collected:** July 10, 1985.  **locality:** Threshing pile, 56km to Silvan from Diyarbakir.  **elevation:** 710m.  **remarks:** Plants short. Cultivated. Seed.

PI 515981  **donor id:** 110785-05.  **origin:** Turkey.  **collected:** July 11, 1985.  **locality:** Drying piles, red rocky soil, 22km northwest of Maden on road to Elazig, Elazig Province.  **elevation:** 1200m. Cultivated. Seed.
PI 515978 to 515983—continued


PI 515984.  Vicia montbretii Fischer & C. Meyer  FABACEAE


PI 515985 to 515987.  Vicia narbonensis L.  FABACEAE Narbonne vetch


PI 515988 to 515989.  Vicia villosa Roth  FABACEAE Hairy vetch

PI 515988 to 515989-continued


PI 515990 to 516001. Daucus carota subsp. sativus (Hoffm.) Arcang. APIACEAE Carrot


PI 515990 to 516001-continued


PI 516002 to 516176. Zea mays L. POACEAE Corn

Donated by: Estacion Exper. Agropecuaria Pergamino, INTA, 2700-Pergamino, Buenos Aires, Argentina. remarks: Received through IBPGR, Rome, Italy. Received December 29, 1987.


   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
   Seed.
PI 516002 to 516176-continued

PI 516028  
**donor id:** ARZM 16 027.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516029  
**donor id:** ARZM 16 028.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516030  
**donor id:** ARZM 16 029.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516031  
**donor id:** ARZM 16 030.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516032  
**donor id:** ARZM 16 031.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516033  
**donor id:** ARZM 16 032.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516034  
**donor id:** ARZM 16 033.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516035  
**donor id:** ARZM 16 034.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516036  
**donor id:** ARZM 16 035.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516037  
**donor id:** ARZM 16 036.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516038  
**donor id:** ARZM 16 037.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516039  
**donor id:** ARZM 16 038.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516040  
**donor id:** ARZM 16 039.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516041  
**donor id:** ARZM 16 040.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516042  
**donor id:** ARZM 16 041.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516043  
**donor id:** ARZM 16 042.  
**origin:** Argentina.  
**Cultivated.**

Seed.

PI 516044  
**donor id:** ARZM 16 043.  
**origin:** Argentina.  
**Cultivated.**

Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
Seed.
PI 516002 to 516176—continued

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.
PI 516002 to 516176—continued

            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
            Seed.
PI 516002 to 516176—continued


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.


Seed.
PI 516002 to 516176-continued

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.

           Seed.
PI 516002 to 516176-continued

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

Seed.

PI 516177. Dactylis glomerata L. POACEAE Orchardgrass


origin: Romania. cultivar: OLIMP. Cultivar. Seed.
PI 516178. Lolium multiflorum Lam. POACEAE Italian ryegrass

**Donated by:** Institutul de Cercetari Pentru, Cereale si Plante Tehnice, 8264 Fundulea, Jud. Calarasi, Romania. Received February 08, 1988.

**origin:** Romania. **cultivar:** ARINA. Cultivar. Seed.

PI 516179 to 516180. Medicago sativa L. FABACEAE Alfalfa

**Donated by:** Institutul de Cercetari Pentru, Cereale si Plante Tehnice, 8264 Fundulea, Jud. Calarasi, Romania. Received February 08, 1988.

PI 516179 **origin:** Romania. **cultivar:** ADONIS. Cultivar. Seed.

PI 516180 **origin:** Romania. **cultivar:** TRIUMF. Cultivar. Seed.

PI 516181. Panicum miliaceum L. POACEAE Proso millet

**Donated by:** Institutul de Cercetari Pentru, Cereale si Plante Tehnice, 8264 Fundulea, Jud. Calarasi, Romania. Received February 08, 1988.

**origin:** Romania. **cultivar:** MINERVA. Cultivar. Seed.

PI 516182. Sorghum x drummondii (Nees ex Steudel) Millsp. & Chase POACEAE Sudangrass

**Donated by:** Institutul de Cercetari Pentru, Cereale si Plante Tehnice, 8264 Fundulea, Jud. Calarasi, Romania. Received February 08, 1988.

**origin:** Romania. **cultivar:** SIRIUS. **received as:** S. sudanense. Cultivar. Seed.

PI 516183. Elymus trachycaulus (Link) Gould ex Shinn. POACEAE Slender wheatgrass

**Donated by:** T.A. Jones, Nielson, D.C., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States. **Remarks:** USDA-ARS 1987 Exploration for native grasses in northeastern Nevada and eastern Oregon. Received February 08, 1988.

**donor id:** T-422. **origin:** United States. **collected:** July 23, 1987. **collector:** T.A. Jones, D.C. Nielson. **collector id:** T-422. **locality:** Highway 395, 8km S of John Day. **latitude:** 44 deg. 22 min. N. **longitude:** 118 deg. 57 min. W. Perennial. Wild. Seed.
PI 516184 to 516190. Elytrigia spicata (Pursh) D. R. Dewey POACEAE
Bluebunch wheatgrass

Donated by: T.A. Jones, D.C. Nielson, Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States.


PI 516184


PI 516185

collector id: T-420. locality: Highway 395, 8km S of Seneca. latitude: 44 deg. 05 min. N. longitude: 118 deg. 58 min. W. received as: Pseudoroegneria spicata. Perennial. Wild. Seed.

PI 516186


PI 516187

collector id: T-424. locality: Hell's Canyon Road, 40km past Halfway junction. received as: Pseudoroegneria spicata. Perennial. Wild. Seed.

PI 516188

collector id: T-425. locality: 0.32km S of Enterprise. latitude: 45 deg. 25 min. N. longitude: 117 deg. 15 min. W. remarks: Seed production excellent. received as: Pseudoroegneria spicata. Perennial. Wild. Seed.

PI 516189

PI 516184 to 516190-continued

collector id: T-428.  locality: South edge of Imnaha.  
latitude: 45 deg. 33 min. N.  longitude: 116 deg. 51 min.  
W.  received as: Pseudoroegneria spicata.  Perennial.  
Wild.  Seed.

PI 516191 to 516192.  Leymus cinereus (Lams.-Scribn. & Merr.) A. Love  
POACEAE  Basin wildrye

Donated by: T.A. Jones, D.C. Nielson, Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States.  

collector id: T-415.  locality: Oregon, 9.6km N of Denio, Nevada.  

collector id: T-418.  locality: Bridge, E of road, N of French Glen.  

PI 516193 to 516195.  Leymus triticoides (Buckley) Pilg.  POACEAE  
Beardless wildrye

Donated by: T.A. Jones, D.C. Nielson, Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States.  

collector id: T-414.  locality: Farmstead, 3.2km W of highways 95 and 140 junction, N of Winnemucca.  
Wild.  Seed.

collector id: T-417.  locality: Bridge, E of road, N of French Glen.  
PI 516193 to 516195-continued


PI 516196 to 516197. Triticum aestivum L. POACEAE Common wheat

Donated by: AgriPro, R.R. #2, Box 411, Brookston, Indiana, United States. Received February 04, 1988.


PI 516198 to 516199. Hordeum vulgare L. POACEAE Barley

Donated by: Busch Agricultural Resources, Inc., P.O. Box 30, Berthoud, Colorado, United States. Received February 04, 1988.
PI 516198 to 516199-continued


PI 516200 to 516201. Triticum aestivum L. POACEAE Common wheat

Donated by: Busch Agricultural Resources, Inc., P.O. Box 30, Berthoud, Colorado, United States. Received February 04, 1988.


PI 516202 to 516203. Trifolium abyssinicum D. Heller  FABACEAE


PI 516202 origin: Ethiopia. remarks: Received 12/14/79 from M. Thulin. received as: T. calocephalum. Annual. Wild. Seed.


PI 516204 to 516208. Trifolium africanum Ser.  FABACEAE


PI 516209. Trifolium aintabense Boiss. & Hausskn.  FABACEAE

PI 516209-continued

donor id: S-194-1. origin: Turkey. other id: 14958. other id: N22. remarks: Received 12/19/73. Annual. Wild. Seed.

PI 516210 to 516213. Trifolium albopurpureum Torrey & A. Gray FABACEAE


PI 516214 to 516217. Trifolium alexandrinum L. FABACEAE Berseem clover


PI 516214 donor id: S-3-1. origin: UNKNOWN. other id: 09-S-3-1. other id: 24479. remarks: Received 1956 from USDA. Annual. Wild. Seed.


PI 516216 donor id: S-3-44. origin: United States. remarks: Received 3/14/80 from W. Knight, USDA-ARS, Mississippi State, Mississippi. Annual. Wild. Seed.
PI 516214 to 516217-continued


PI 516218 to 516220. Trifolium alpestre L. FABACEAE Zig-zag clover


PI 516221. Trifolium alpinum L. FABACEAE


PI 516222. Trifolium amabile Kunth FABACEAE


PI 516223. Trifolium amabile var. longifolium Hemsley FABACEAE

PI 516223-continued


PI 516224 to 516226. Trifolium ambiguum M. Bieb. FABACEAE Kura clover


PI 516227. Trifolium angulatum Waldst. & Kit. FABACEAE


PI 516228. Trifolium angustifolium L. FABACEAE


PI 516229. Trifolium angustifolium var. intermedium Gibelli & Belli  
FABACEAE

*Donated by:* Taylor, N.L., Department of Agronomy, University of  
Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United  
States. Received August 14, 1986.

*donor id:* S-164-1. *origin:* Israel. *other id:* CPI 14934.  
*remarks:* Received 8/17/70 from A.J. Pritchard. *received as:* T. intermedium. *Annual. Wild. Seed.*

PI 516230. Trifolium apertum Bobrov  
FABACEAE

*Donated by:* Taylor, N.L., Department of Agronomy, University of  
Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United  
States. Received August 14, 1986.

*donor id:* S-70-3. *origin:* UNKNOWN. *other id:* 44/74.  
*remarks:* Received 4/22/80 from Federal Republic of  
Germany. *Annual. Seed.*

PI 516231 to 516233. Trifolium argutum Sol.  
FABACEAE

*Donated by:* Taylor, N.L., Department of Agronomy, University of  
Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United  
States. Received August 14, 1986.

PI 516231  
*remarks:* Received 4/22/80 from Federal Republic of  

PI 516232  
*remarks:* Received 8/17/70 from A.J. Pritchard, CSIRO,  
Australia. *Seed.*

PI 516233  
*remarks:* Received 6/27/86 from Royal Botanic  
Garden, Kew. *Annual. Seed.*

PI 516234 to 516236. Trifolium arvense L.  
FABACEAE Rabbit-foot clover

*Donated by:* Taylor, N.L., Department of Agronomy, University of  
Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United  
States. Received August 14, 1986.

PI 516234  
Naturalized. Received 3/15/76. *Annual. Seed.*
PI 516234 to 516236-continued


PI 516236  donor id: S-6-16. origin: Romania. remarks: Received 5/12/86 from A. Szabo, Romania. Annual. Seed.

PI 516237 to 516241. Trifolium aureum Pollich FABACEAE


PI 516237  donor id: S-2-7. origin: Sweden. remarks: Received 2/6/86. received as: T. agrarium. Annual. Seed.


PI 516241  donor id: S-171-1. origin: Soviet Union. other id: Kuibyshev 24. remarks: Received 1/21/71 via Agriculture Canada from a botanic garden. received as: T. strepens. Annual. Seed.

PI 516242. Trifolium baccarinii Chiov. FABACEAE


PI 516243 to 516245. Trifolium barbigerum Torrey FABACEAE

PI 516243 to 516245-continued

PI 516243


PI 516244


PI 516245


PI 516246. Trifolium barbigerum var. andrewsii A. Gray FABACEAE


PI 516247. Trifolium batmanicum Katzn. FABACEAE


PI 516248 to 516253. Trifolium bifidum A. Gray FABACEAE


PI 516248


PI 516254. Trifolium bilineatum Fresen. FABACEAE


PI 516255. Trifolium billardieri Sprengel FABACEAE


PI 516256. Trifolium blancheanum Boiss. FABACEAE


PI 516257. Trifolium bocconeii Savi FABACEAE


PI 516258. Trifolium bocconeii var. tenuifolium (Ten.) Griseb. FABACEAE


PI 516259 to 516261. Trifolium bullatum Boiss. & Hausskn. FABACEAE


PI 516259 to 516261-continued


PI 516262 to 516266. Trifolium burchellianum Ser. FABACEAE


PI 516267 to 516270. Trifolium campestre Schreber FABACEAE Large hop clover


PI 516267 to 516270-continued


PI 516271 to 516273.  Trifolium carolinianum Michaux  FABACEAE


PI 516274 to 516275.  Trifolium cernuum Brot.  FABACEAE


PI 516276.  Trifolium caucasicum Tausch  FABACEAE

PI 516276-continued


PI 516277 to 516279. Trifolium cherleri L. FABACEAE


PI 516277 donor id: S-12-1. origin: United States. other id: 31-S-12-1. remarks: Tetraploid (4n) developed by N.L. Taylor from PI 200369. Annual. Seed.


PI 516280. Trifolium chilense Hook. & Arn. FABACEAE


PI 516281 to 516282. Trifolium ciliolatum Benth. FABACEAE


PI 516281 to 516282-continued


PI 516283 to 516287. Trifolium clusii Godron & Gren. FABACEAE


PI 516283 donor id: S-201-1. origin: Israel. other id: 14959. other id: Mgt 907. remarks: Received 12/19/73 from J.M. Gillett, Canada. Annual. Wild. Seed.


PI 516288. Trifolium clypeatum L. FABACEAE


PI 516289. Trifolium constantinopolitanum Ser. FABACEAE


donor id: S-177-2. origin: Israel. other id: CPI 45082. other id: W1496. locality: About 20m S of west end of bridge over Schneer (Jordan) River, 4km E of Qiryat Shemone. remarks: Received 8/5/85 from CSIRO, Australia. Annual. Wild. Seed.

PI 516290. Trifolium cryptopodium Steudel ex A. Rich. FABACEAE


PI 516291. Trifolium cyathiferum Lindley FABACEAE


donor id: S-142-1. origin: United States. other id: T.O. 2747. locality: Sierra County, California. remarks: Received 6/1/66 from B. Crampton, University of California, Davis. Annual. Wild. Seed.

PI 516292. Trifolium dalmaticum Vis. FABACEAE


PI 516293. Trifolium decorum Chiov. FABACEAE

PI 516293-continued


PI 516294 to 516297. Trifolium depauperatum Desv. FABACEAE


PI 516298 to 516299. Trifolium dichotomum Hook. & Arn. FABACEAE


PI 516300. Trifolium diffusum Ehrh. FABACEAE


PI 516301 to 516303. Trifolium dubium Sibth. FABACEAE Small hop clover


PI 516303 donor id: S-120-1. origin: Czechoslovakia. other id: 1893-2620. locality: Tabor. remarks: Received 2/17/64 From Agriculture Canada. received as: T. minis. Annual. Wild. Seed.

PI 516304. Trifolium echinatum var. carmeli (Boiss.) Gibelli & Belli FABACEAE


PI 516305. Trifolium eriosphaerum Boiss. FABACEAE

PI 516305-continued


PI 516306 to 516308. Trifolium fragiferum L. FABACEAE Strawberry clover


PI 516308 donor id: S-16-53. origin: Romania. remarks: Received 5/12/86 from A. Szabo. Perennial. Seed.

PI 516309 to 516314. Trifolium fucatum Lindley FABACEAE


PI 516309 donor id: S-143-1. origin: United States. other id: Herb. No 6364. locality: Yolo County, California. remarks: Received 6/1/66 from B. Crampton, University of California, Davis. Annual. Wild. Seed.

PI 516310 donor id: S-143-2. origin: United States. other id: Herb. No 7653. locality: Yolo County, California. remarks: Received 6/10/66 from B. Crampton, University of California, Davis. Annual. Wild. Seed.


PI 516312 donor id: S-146-1. origin: United States. other id: Herb. No 7630. locality: Solano County, California. remarks: Received 6/10/66 from B. Crampton, University of California, Davis. received as: T. flavulum. Annual. Wild. Seed.
PI 516309 to 516314-continued


PI 516314 donor id: S-146-3. origin: United States. locality: Davis, California. remarks: Received 5/1/66 from University of California, Davis. received as: T. flavulum. Annual. Wild. Seed.

PI 516315. Trifolium glanduliferum var. nervulosum (Boiss. & Heldr.) Zoh. FABACEAE


    donor id: S-200-1. origin: Israel. other id: 14947. other id: 1611. remarks: Received 12/19/73 from J.B. Gillett, Canada. received as: T. nervulosum.. Annual. Wild. Seed.

PI 516316. Trifolium glomeratum L. FABACEAE


PI 516317 to 516319. Trifolium gracilentum Torrey & A. Gray FABACEAE


PI 516317 to 516319-continued


PI 516320. Trifolium gracilentum var. palmeri (S. Watson) McDermott  FABACEAE


PI 516321 to 516323. Trifolium grandiflorum Schreber  FABACEAE


PI 516322 donor id: S-220-1. origin: United Kingdom. other id: 253-09. remarks: Received 5/7/80 from Royal Botanic Garden, Kew. Annual. Seed.


PI 516324. Trifolium haydenii Porter  FABACEAE


PI 516325 to 516326. Trifolium heldreichianum (Gibelli & Belli) Hausskn. FABACEAE


PI 516327 to 516329. Trifolium hirtum All. FABACEAE Rose clover


PI 516330 to 516338. Trifolium hybridum L. FABACEAE Alsike clover


PI 516330 to 516338—continued

PI 516332  
origin: New Zealand.  
other id: Ab 214.  
remarks: Received 5/5/87 from E. Williams, Australia.  
Perennial.  
Seed.

PI 516333  
origin: Sweden.  
other id: Ab 218.  
remarks: Received 5/5/87 from E. Williams, Australia.  
Perennial.  
Seed.

PI 516334  
donor id: S-19-23.  
origin: Finland.  
other id: Ab 221.  
remarks: Received 5/5/87 from E. Williams, Australia.  
Perennial.  
Seed.

PI 516335  
origin: Germany, Federal Rep of.  
other id: Ab 259.  
remarks: Received 5/5/87 from E. Williams, Australia.  
Perennial.  
Seed.

PI 516336  
origin: Australia.  
other id: Ab 57.  
remarks: Received 5/5/87 from E. Williams, Australia.  
Perennial.  
Seed.

PI 516337  
origin: Finland.  
other id: Ab 221.  
remarks: Received 5/5/87 from E. Williams, Australia.  
Perennial.  
Seed.

PI 516338  
origin: Australia.  
other id: Ab 73.  
remarks: Received 5/5/87 from E. Williams, Australia.  
Perennial.  
Seed.

PI 516339.  
Trifolium hybridum var. elegans (Savi) Boiss.  
FABACEAE

Received August 14, 1986.

donor id: S-206-1.  
origin: UNKNOWN.  
other id: 324.  
remarks: Received 9/8/76 from J.M. Gillett, Canada.  
received as: T. elegans.  
Perennial.  
Seed.

PI 516340.  
Trifolium incarnatum L.  
FABACEAE  Crimson clover

Received August 14, 1986.

donor id: 91-S-20.  
origin: United States.  
remarks: 
Tetraploid (4n) type induced by N.L. Taylor.  
Annual.  
Breeding Material.  
Seed.
PI 516341. Trifolium lanceolatum (J. B. Gillett) J. B. Gillett
FABACEAE


  donor id: S-218-1. origin: Ethiopia. other id: 1646.
  remarks: Received 12/14/79 from M. Thulin. Annual. Wild. Seed.

PI 516342. Trifolium lappaceum L. FABACEAE Lappa clover


PI 516343. Trifolium longipes Nutt. FABACEAE


PI 516344. Trifolium lucanicum Gasp. ex Guss. FABACEAE


  donor id: S-210-1. origin: UNKNOWN. remarks: Received 9/8/76 from J.M. Gillett, Canada. Annual. Seed.

PI 516345. Trifolium macraei Hook. & Arn. FABACEAE


  donor id: S-192-1. origin: United States. remarks: Received 12/19/73 from J.M. Gillett, Canada. Annual. Seed.
PI 516346. Trifolium mattriolianum Chiov. FABACEAE


PI 516347 to 516356. Trifolium medium L. FABACEAE Zig-zag clover


PI 516347 to 516356-continued

PI 516356  
donor id: S-25-37.  
origin: United Kingdom.  
other id: 0010377.  
remarks: Received 6/27/86 from Royal Botanic Garden, Kew.  
Perennial.  
Wild.  
Seed.

PI 516357. Trifolium michelianum Savi  
FABACEAE


origin: UNKNOWN.  
other id: 145/76.  
remarks: Received 4/22/80 from Federal Republic of Germany.  
Annual.  
Seed.

PI 516358. Trifolium michelianum var. balansae (Boiss.) Azn.  
FABACEAE


donor id: S-7-4.  
origin: Australia.  
other id: 1893-2892.  
remarks: Received 2/17/64 from Agriculture Canada.  
received as: T. balanse.  
Annual.  
Seed.

PI 516359. Trifolium micranthum Viv.  
FABACEAE


donor id: S-195-1.  
origin: UNKNOWN.  
other id: 46021.  
remarks: Received 12/19/73 from J.M. Gillett, Canada.  
Annual.  
Seed.

PI 516360 to 516365. Trifolium microcephalum Pursh  
FABACEAE


PI 516360  
donor id: S-54-1.  
origin: United States.  
other id: Calif. No. K-2325.  
remarks: Received 5/14/62 from W. Williams, University of California, Davis.  
Annual.  
Wild.  
Seed.

PI 516361  
donor id: S-54-2.  
origin: United States.  
collected: 1960.  
collector: B. Crampton.  
locality: 3.3km W of Shingle Springs.  
Annual.  
Wild.  
Seed.
PI 516360 to 516365-continued

PI 516362  
donor id: S-54-3.  
origin: United States.  
collected: April 20, 1966.  
collector: B. Crampton.  
other id: Herb. No. 7660.  
locality: Yolo County, California.  
Annual. Wild. Seed.

PI 516363  
donor id: S-54-4.  
origin: United States.  
collected: May 06, 1966.  
collector: N.L. Taylor.  
locality: Winters, California.  
Annual. Wild. Seed.

PI 516364  
donor id: S-54-5.  
origin: United States.  
collected: May 05, 1966.  
collector: N.L. Taylor.  
locality: Hopland, California.  
Annual. Wild. Seed.

PI 516365  
donor id: S-54-6.  
origin: United States.  
collected: April 17, 1966.  
collector: N.L. Taylor.  
locality: 8.2km W of Winters, California.  
Annual. Wild. Seed.

PI 516366 to 516367.  
Trifolium microdon Hook. & Arn.  
FABACEAE


PI 516366  
donor id: S-145-1.  
origin: United States.  
collected: April 26, 1966.  
collector: B. Crampton.  
other id: Herb. No. 7676.  
locality: Solano County, California.  
Annual. Wild. Seed.

PI 516367  
origin: United States.  
collected: May 06, 1966.  
collector: N.L. Taylor.  
locality: Fairfield, California.  
Annual. Wild. Seed.

PI 516368.  
Trifolium miegeanum Maire  
FABACEAE


donor id: S-66-3.  
origin: Portugal.  
other id: 116/74.  
remarks: Received 4/20/80 from Federal Republic of Germany.  
Annual. Wild. Seed.

PI 516369.  
Trifolium multinerve A. Rich.  
FABACEAE

PI 516369-continued

**donor id:** S-216-2. **origin:** Ethiopia. **origin institute:** ILCA, Addis Ababa. **origin institute id:** 9710. **remarks:** Received 9/12/84 from A.R. Smith, Addis Ababa. Annual. Wild. Seed.

PI 516370. *Trifolium mutabile* Portenschl. FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

**donor id:** S-197-1. **origin:** Turkey. **other id:** 14960. **remarks:** Received 12/19/73 from J.M. Gillett, Canada. **received as:** *T. leiocalycinum*. Annual. Wild. Seed.

PI 516371. *Trifolium nigrescens* Viv. FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

**donor id:** S-28-1. **origin:** United States. **origin institute:** USDA-SCS, Thorsby, Alabama. **other id:** FC 24997. **remarks:** Received 1956 from E.A. Hollowell, USDA. Annual. Seed.

PI 516372. *Trifolium noricum* Wulfen FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

**donor id:** S-160-1. **origin:** Austria. **other id:** 41-S-160-1. **other id:** No. ML 343. **remarks:** Received 4/14/70 from J.M. Gillett, Agriculture Canada, Ottawa, via Botanic Garden, Uppsula, Sweden. Perennial. Wild. Seed.

PI 516373. *Trifolium ochroleucon* Hudson FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

**donor id:** S-87-4. **origin:** UNKNOWN. **remarks:** Received 2/1/66 from Botanic Garden, University of Reading, England. Perennial. Seed.
PI 516374. Trifolium ornithopodioides L.  FABACEAE


donor id: S-188-1. origin: United States. other id: 01-S-188-1. remarks: Received 12/19/73 from J.M. Gillett, Agriculture Canada, Ottawa. Annual. Wild. Seed.

PI 516375. Trifolium palaestinum Boiss.  FABACEAE


PI 516376. Trifolium pallescens Schreber  FABACEAE


PI 516377 to 516383. Trifolium pannonicum Jacq.  FABACEAE


PI 516379 donor id: S-30-10. origin: Romania. remarks: Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.


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PI 516377 to 516383-continued


PI 516384 to 516385. Trifolium parryi A. Gray. FABACEAE


PI 516386. Trifolium patens Schreber FABACEAE


PI 516387. Trifolium patulum Tausch FABACEAE


donor id: S-221-1. origin: United Kingdom. other id: 413-06. remarks: Received 5/7/80 from Royal Botanic Garden, Kew. Perennial. Wild. Seed.

PI 516388 to 516389. Trifolium philistaeum Zoh. FABACEAE

PI 516388 to 516389-continued


PI 516390. Trifolium pichisermollii J. B. Gillett FABACEAE


PI 516391. Trifolium pinetorum E. Greene FABACEAE


donor id: S-203-1. origin: UNKNOWN. other id: Plant no. 814. remarks: Received 12/19/73 from J.M. Gillett, Agriculture Canada, Ottawa. Annual. Wild. Seed.

PI 516392. Trifolium plebeium Boiss. FABACEAE


PI 516393 to 516395. Trifolium polymorphum Poiret FABACEAE

PI 516393 to 516395-continued


PI 516394  donor id: S-100-1.  origin: UNKNOWN.  other id: CRC-259-66.  remarks: Received 12/15/62 from USDA-ARS.  received as: T. megalanthum.  Perennial.  Seed.


PI 516396.  Trifolium polystachyum Fresen.  FABACEAE


PI 516397.  Trifolium pratense L.  FABACEAE  Red clover


PI 516398.  Trifolium purpureum Lois.  FABACEAE


PI 516399.  Trifolium quartinianum A. Rich.  FABACEAE

PI 516399-continued


PI 516400 to 516402. Trifolium reflexum L. FABACEAE


PI 516403 to 516418. Trifolium repens L. FABACEAE White clover


PI 516410  donor id: S-35-25.  origin: Romania.  remarks: Received 5/12/86 from A. Szabo.  Perennial.  Seed.


PI 516419 to 516423. Trifolium resupinatum L.  FABACEAE  Persian clover

PI 516419 to 516423-continued


PI 516424. Trifolium retusum L. FABACEAE


PI 516425. Trifolium riograndense Burkart FABACEAE


PI 516426 to 516427. Trifolium rubens L. FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

PI 516426 **donor id:** S-72-9. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.

PI 516427 **donor id:** S-72-10. **origin:** United Kingdom. **other id:** 0007070. **remarks:** Received 5/26/86 from Royal Botanic Garden, Kew. Perennial. Wild. Seed.

PI 516428. Trifolium rueppellianum Fresen. FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

**donor id:** S-37-8. **origin:** Ethiopia. **other id:** 1581. **remarks:** Received 12/14/79 from M. Thulin. Annual. Wild. Seed.

PI 516429. Trifolium schimperi A. Rich. FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

**donor id:** S-217-1. **origin:** Ethiopia. **other id:** 1587. **remarks:** Received 12/14/79 from M. Thulin. Annual. Wild. Seed.

PI 516430 to 516432. Trifolium semipilosum Fresen. FABACEAE Kenya clover

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

PI 516430 **donor id:** S-40-6. **origin:** Australia. **other id:** Az 509. **other id:** CPI 31966. **remarks:** Received 5/5/87 from E. Williams, Australia. Annual. Seed.

PI 516431 **donor id:** S-40-7. **origin:** Australia. **other id:** Az 508. **other id:** CPI 27218. **remarks:** Received 5/5/87 from E. Williams, Australia. Annual. Seed.

PI 516432 **donor id:** S-40-9. **origin:** Australia. **other id:** Az 491. **remarks:** Received 5/5/87 from E. Williams, Australia. Tetraploid type. Annual. Seed.
PI 516433 to 516434. Trifolium spadiceum L. FABACEAE


PI 516435. Trifolium squamosum L. FABACEAE


PI 516436 to 516439. Trifolium stellatum L. FABACEAE Star clover


PI 516439 donor id: S-223-1. origin: United Kingdom. other id: 362-03. remarks: Received 5/7/80 from Royal Botanic Garden, Kew. received as: T. xanthium. Annual. Wild. Seed.
PI 516440 to 516441. *Trifolium stoloniferum* Muhlenb. FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

**PI 516440**

- **donor id:** S-232-1.
- **origin:** United States.
- **collector:** R. Bartgis.
- **remarks:** Received 9/1/84, from a nature conservatory. Perennial. Seed.

**PI 516441**

- **donor id:** S-232-2.
- **origin:** United States.
- **collector:** R. Bartgis.
- **remarks:** Received 9/30/85. Perennial. Seed.

PI 516442. *Trifolium striatum* L. FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

- **donor id:** S-44-7.
- **origin:** Portugal.
- **other id:** 41-S-44-7.
- **other id:** 1893-7167.
- **remarks:** Received from Agriculture Canada. Annual. Wild. Seed.

PI 516443. *Trifolium strictum* L. FABACEAE

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

- **donor id:** S-193-1.
- **origin:** Israel.
- **other id:** 14740 plt 781.
- **remarks:** Received 12/19/73 from J.M. Gillett, Canada. received as: *T. laevigatum*. Annual. Seed.

PI 516444. *Trifolium subterraneum* L. FABACEAE Subterranean clover

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.

- **donor id:** S-47-19.
- **origin:** United States.
- **other id:** FC 35216.
- **remarks:** Received 7/29/63 from CS-USDA. Selection by J.P. Craigmiles, Experiment, Georgia. Annual. Cultivated. Seed.

PI 516445. *Trifolium suffocatum* L. FABACEAE Suffocated clover

**Donated by:** Taylor, N.L., Department of Agronomy, University of Kentucky, N-122 Agr. Sci. Bldg North, Lexington, Kentucky, United States. Received August 14, 1986.
PI 516445-continued


PI 516446. Trifolium tembense Fresen. FABACEAE


PI 516447 to 516448. Trifolium thalii Villars FABACEAE


PI 516449 to 516451. Trifolium tomentosum L. FABACEAE Woolly clover


PI 516449 to 516451-continued


PI 516452. Trifolium trichocephalum M. Bieb. FABACEAE


PI 516453 to 516458. Trifolium tridentatum Lindley FABACEAE


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PI 516459. Trifolium tumens Steven ex M. Bieb. FABACEAE


PI 516460 to 516461. Trifolium uniflorum L. FABACEAE


PI 516460 donor id: S-159-1. origin: UNKNOWN. remarks: Received 3/30/70 from P. Gibson, USDA-ARS, Clemson University. Perennial. Seed.

PI 516461 donor id: S-159-4. origin: New Zealand. other id: AZ 926. remarks: Received 5/5/87 from E. Williams, Australia. Annual. Seed.

PI 516462. Trifolium usambarense Taubert FABACEAE


PI 516463 to 516466. Trifolium variegatum Nutt. FABACEAE Whitetip clover


PI 516463 to 516466-continued


PI 516467 to 516468.  Trifolium vavilovii Eig  FABACEAE


PI 516469 to 516470.  Trifolium vernum Philippi  FABACEAE


PI 516471 to 516472.  Trifolium virginicum Small  FABACEAE


PI 516471 to 516472-continued


PI 516473 to 516475. Trifolium wormskjoldii Lehm. FABACEAE


PI 516476. Cornus mas L. CORNACEAE Cornelian-cherry

Donated by: Elsberry Plant Materials Center, USDA-SCS, R.R. #1, Box 9, Elsberry, Missouri, United States. remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 15, 1988.


PI 516477. Liriodendron tulipifera L. MAGNOLIACEAE Tulip popular

Donated by: Elsberry Plant Materials Center, USDA-SCS, R.R. #1, Box 9, Elsberry, Missouri, United States. remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 15, 1988.
PI 516477-continued

**donor id:** 9055584. **origin:** United States. **other id:** Ml-3688. **locality:** Anna, Union County. **remarks:** Large deciduous tree, 24.3-30.4m. Adapted to zones 5,6,7,8, 9 east of Miss. River. Flowers large, showy April-June. Selected for superior rate of growth, high seedling vigor and density and uniformity of crown. Potential conservation use in multi-row windbreaks and landscaping. Cultivated. Seed.

PI 516478. Ulmus parvifolia Jacq. ULMACEAE Chinese elm

**Donated by:** Elsberry Plant Materials Center, USDA-SCS, R.R. #1, Box 9, Elsberry, Missouri, United States. **remarks:** Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 15, 1988.


PI 516479. Acacia sp. FABACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**donor id:** GR 355A. **origin:** Morocco. **collected:** July 10, 1983. **locality:** Temara-Plage, 20km S of Rabat. **elevation:** 10m. **remarks:** Used as ornamental and along roads to stabilize sanddunes. Cultivated. Seed.

PI 516480. Adenocarpus sp. FABACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516480-continued


PI 516481 to 516482. Agropyron cristatum (L.) Gaertn. POACEAE Fairway crested wheatgrass

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516483 to 516485. Agrostis sp. POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516485 donor id: GR 685. origin: Morocco. collected: July 31, 1983. locality: Mountain meadow, 70km N of Boulmane on Road 3444 near Msemrir, Ouarzazate. elevation: 2100m. Wild. Seed.
PI 516486 to 516487. Anthyllis tetraphylla L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516486 donor id: GR 287. origin: Morocco. collected: July 06, 1983. locality: Roadside, 16km SE of Tiflet. elevation: 300m. Wild. Seed.


PI 516488 to 516489. Anthyllis vulneraria L. FABACEAE Kidney vetch

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516490. Artemisia herba-alba Asso ASTERACEAE White wormwood

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516491. Astragalus asterias Steven ex Ledeb. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516492 to 516495. Astragalus hamosus L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516493 donor id: GR 322. origin: Morocco. collected: July 06, 1983. locality: Shallow red brown soil, heavily grazed, 15 1/2km NW of Maaziz on S 204. elevation: 450m. Wild. Seed.


PI 516496 to 516502. Astragalus sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516496 to 516504

**PI 516496**

**donor id:** GR 114.  
**origin:** Morocco.  
**collected:** July 05, 1983.  
**other id:** MG 140683-0306.  
**source:** ICARDA, Aleppo, Syria.  
**other id:** IFVI 2799.  
**locality:** Undulating forest margin, clay loam over bluestone sandstone, 24 km from Azilal to Aid Mohammed, Azilal.  
**elevation:** 1640 m.  
**remarks:** 600 mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

**PI 516497**

**donor id:** GR 171.  
**origin:** Morocco.  
**collected:** July 05, 1983.  
**other id:** BWM 200683-0102.  
**source:** ICARDA, Aleppo, Syria.  
**other id:** IFSC 46.  
**locality:** Level roadside, soil sandy loam, 45 km from Rabat to Casablanca, Rabat.  
**elevation:** 50 m.  
**remarks:** 500 mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

**PI 516498**

**donor id:** GR 293.  
**origin:** Morocco.  
**collected:** July 06, 1983.  
**locality:** 33 km SE of Tiflet.  
**elevation:** 350 m.  
**remarks:** Leaves pinnately compound. 500-550 mm ppt/yr. Wild. Seed.

**PI 516499**

**donor id:** GR 479.  
**origin:** Morocco.  
**collected:** July 15, 1983.  
**locality:** Heavy, rocky soil, 45 deg. slope, 1 km N of Tizi-Ouzli on Road S 312, 18 km N of Aknoul.  
**elevation:** 1200 m.  

**PI 516500**

**donor id:** GR 573.  
**origin:** Morocco.  
**collected:** July 23, 1983.  
**locality:** Roadside, 15 km S of Boumia on Road 3427, N of Midelt.  
**elevation:** 1800 m.  
**remarks:** 330 mm annual, 114 mm in 1983. Wild. Seed.

**PI 516501**

**donor id:** GR 588.  
**origin:** Morocco.  
**collected:** July 23, 1983.  
**locality:** 12 km N of Tounfit on Boumia Road, W of Midelt.  
**elevation:** 1900 m. Perennial. Wild. Seed.

**PI 516502**

**donor id:** GR 843.  
**origin:** Morocco.  
**collected:** August 02, 1983.  
**locality:** 156 km E of Agadir on Road S 501.  
**elevation:** 1575 m. Wild. Seed.

**PI 516503 to 516504**

Atriplex halimus L.  
CHENOPODIAEAE Sea orach

Donated by:  
Rumbaugh, M.D., Forage and Range Research Lab.,  
USDA-ARS, Utah State University, Logan, Utah, United States; and  
Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516503 to 516504-continued


PI 516505. Atriplex nummularia Lindley CHENOPODIACEAE Old man saltbush

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516506 to 516507. Avena bromoides Gouan POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516506  donor id: GR 461. origin: Morocco. collected: July 15, 1983. locality: 5km NW of Aknoul, near Forest Service Station, 1 km S of Road S 304. elevation: 1100m. Wild. Seed.

PI 516507  donor id: GR 557. origin: Morocco. collected: July 20, 1983. locality: 13km E of junction of Roads P 24 and 4629 on Road 4630, 27km NE of Ifrane. elevation: 1625m. Wild. Seed.

PI 516508. Bituminaria bituminosa (L.) Stirton FABACEAE Arabian scurfpea

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516508-continued

donor id: GR 446.  origin: Morocco.  collected: July 14, 1983.  locality: 43km E of Chechaouen on Road P 39.  elevation: 925m.  remarks: 1000+mm ppt/yr.  received as: Psoralea bitumenosum.  Wild.  Seed.

PI 516509 to 516513.  Brachypodium phoenicoides (L.) Roem. & Schult.  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516511  donor id: GR 443.  origin: Morocco.  collected: July 14, 1983.  locality: In vacant lot by Secretary-General's house, Chechaouen.  elevation: 590m.  Wild.  Seed.

PI 516512  donor id: GR 462.  origin: Morocco.  collected: July 15, 1983.  locality: 5km NW of Aknoul near Forest Service Station, 1 km S of Road S 304.  elevation: 1100m.  Wild.  Seed.

PI 516513  donor id: GR 556.  origin: Morocco.  collected: July 20, 1983.  locality: 13km E of junction of Roads P 24 and 4629 on Road 4630, 29km NE of Ifrane.  elevation: 1100m.  Wild.  Seed.

PI 516514.  Caesalpinia gilliesii (Wallich ex Hook.) D. Dietr.  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516515. Calicotome villosa (Poiret) Link  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

donor id: GR 821. origin: Morocco. collected: August 08, 1983. locality: Beach dune site, 34km S of Tangiers on Road P 2. remarks: Shrub, spiny. Wild. Seed.

PI 516516 to 516517. Cenchrus ciliaris L. POACEAE Buffelgrass

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516518 to 516519. Cicer arietinum L. FABACEAE Chickpea

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516520. Cordeauxia edulis Hemsley  FABACEAE Yebbnut

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516520-continued

donor id: GR 750. origin: Morocco. collected: August 03, 1983. locality: 181km E of Agadir on Road P 32. elevation: 1050m. remarks: Plant 5m tall. Kernels used to make salad and industrial oil. Fruit used to feed goats. Tree. Wild. Seed.

PI 516521. Coronilla minima L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516522 to 516523. Coronilla sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516524 to 516525. Cymbopogon schoenanthus (L.) Sprengel POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516524 donor id: GR 628. origin: Morocco. collected: July 29, 1983. locality: 11km from Tineidad on Road P 32, near Goulmima. elevation: 1000m. remarks: Good forage species. 100-150mm precipitation zone. Wild. Seed.
PI 516524 to 516525-continued


PI 516526. Cytisus multiflorus (L'Her.) Sweet FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516527. Cytisus sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516528 to 516546. Dactylis glomerata L. POACEAE Orchardgrass

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516528 to 516546-continued


PI 516535 donor id: GR 441. origin: Morocco. collected: July 14, 1983. locality: Vacant lot, Secretary-General's house, Chechaouen. elevation: 590m. Wild. Seed.


PI 516539 donor id: GR 490. origin: Morocco. collected: July 17, 1983. locality: Rocky, acid loam, ferns in Forest Service planting, 10km S of Bab Azhar on S 311. elevation: 1250m. remarks: 1000-1200mm average rainfall. Wild. Seed.

PI 516528 to 516546-continued


PI 516544  donor id: GR 554. origin: Morocco. collected: July 20, 1983. locality: 13km E of junction of Roads P 24 and P 4629 on Road 4630, 29km NE of Ifrane. elevation: 1625m. Wild. Seed.

PI 516545  donor id: GR 572. origin: Morocco. collected: July 22, 1983. locality: Oak woodland forest, 50km SE of Khenitra on Road P 33 near Tanout-ou-Fillali, 90km W of Midelt. elevation: 1900m. Wild. Seed.

PI 516546  donor id: GR 826. origin: Morocco. collected: August 08, 1983. locality: Heavy clay, loam soil, 17km S of Tangiers off Road P 2 and W of airport. elevation: 25m. remarks: Plants large. 800mm precipitation zone. Wild. Seed.

PI 516547. Dasypyrum hordeaceum (Coss. & Durieu) Candargy  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516548 to 516549. Ebenus pinnata Aiton  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516548 to 516549-continued


PI 516550.  Ehrharta calycina J. E. Sm.  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.

donor id: GR 389.  origin: South Africa.  collected: July 12, 1983.  locality: Garden of Secretary-General, Chechaouen.  elevation: 610m.  Cultivated.  Seed.

PI 516551 to 516552.  Elytrigia elongata (Host) Nevski  POACEAE  Tall wheatgrass

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.

PI 516551  donor id: GR 378.  origin: Morocco.  collected: July 11, 1983.  locality: Edge of fescue seed field, 22km W of Ouezzane on Road P 23.  elevation: 200m.  received as:  Agropyron elongatum.  Cultivated.  Seed.

PI 516552  donor id: GR 693.  origin: Morocco.  collected: July 31, 1983.  locality: 50km N of Tinerhir (Tinghir) on Road 3444, Ouarzazate.  elevation: 2500m.  remarks: An important species for this type of site and elevation.  received as:  Agropyron elongatum.  Wild.  Seed.
PI 516553 to 516554. *Elytrigia intermedia* (Host) Nevski  
**POACEAE**  
Intermediate wheatgrass

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab.,  
USDA-ARS, Utah State University, Logan, Utah, United States; and  
Graves, W., Cooperative Agricultural Extension, 5556 Overland  
Avenue, Building 4, San Diego, California, United States. Received  
January 1986.

**PI 516553**  
donor id: GR 464. origin: Morocco.  
collected: July 15, 1983.  
locality: Roadside, arid site, 3km NW of Aknoul on  
Road S 304.  
elevation: 1000m.  
received as: Agropyron  
intermedium.  
Wild. Seed.

**PI 516554**  
donor id: GR 478. origin: Morocco.  
collected: July 15, 1983.  
locality: In vineyard, 18km N of Aknoul, N edge of  
Tizi-Ouzli on Road S 312.  
elevation: 1225m.  
remarks:  
Plants widely scattered.  
received as: Agropyron  
intermedium.  
Wild. Seed.

PI 516555 to 516556. *Elytrigia juncea* (L.) Nevski  
**POACEAE**  
Wheatgrass

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab.,  
USDA-ARS, Utah State University, Logan, Utah, United States; and  
Graves, W., Cooperative Agricultural Extension, 5556 Overland  
Avenue, Building 4, San Diego, California, United States. Received  
January 1986.

**PI 516555**  
donor id: GR 353. origin: Morocco.  
collected: July 10, 1983.  
locality: Sand dune habitat, along coast, 20km S  
of Rabat, Temara Plage.  
elevation: 5m.  
received as: Agropyron  
junceum.  
Wild. Seed.

**PI 516556**  
donor id: GR 820. origin: Morocco.  
collected: August 08, 1983.  
locality: 34km S of Tangiers on Road P 2, at  
Asilah Beach.  
elevation: 5m.  
received as: Agropyron  
junceum.  
Wild. Seed.

PI 516557 to 516566. *Festuca arundinacea* Schreber  
**POACEAE**  
Tall fescue

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab.,  
USDA-ARS, Utah State University, Logan, Utah, United States; and  
Graves, W., Cooperative Agricultural Extension, 5556 Overland  
Avenue, Building 4, San Diego, California, United States. Received  
January 1986.

**PI 516557**  
donor id: GR 306. origin: Morocco.  
collected: July 06, 1983.  
locality: Along dry stream bed, 2km E of Oulmes.  
elevation: 1250m.  
Wild. Seed.


PI 516561 donor id: GR 485. origin: Morocco. collected: July 17, 1983. locality: Extremely grazed location, Bab-Boudir, 30km S of Taza on Road S 311. elevation: 1400m. Wild. Seed.


PI 516563 donor id: GR 593. origin: Morocco. collected: July 24, 1983. locality: Adjacent to a 'fa'fu field, Boumia, 62km W of Midelt on Road P 33. elevation: 1600m. Wild. Seed.


PI 516565 donor id: GR 692. origin: Morocco. collected: July 31, 1983. locality: Mountain meadow site, 70km N of Boulmane on Road 3444 near Msemrir at Tagzuvt Ait Merghad, Ouarzazate. elevation: 2100m. Wild. Seed.

PI 516566 donor id: GR 785. origin: Morocco. collected: August 05, 1983. locality: 113km E of Marrakech near Demnate on Road S 508. elevation: 900m. remarks: 500mm precipitation zone. Wild. Seed.

PI 516567 to 516570. Festuca pratensis Hudson POACEAE Meadow fescue

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516567 to 516570—continued


PI 516569  donor id: GR 475.  origin: Morocco. collected: July 15, 1983.  locality: Roadside, S edge of Tizi-Ouzli on Road S 312, 18km N of Aknoun.  elevation: 1225m. remarks: Leaves narrow. received as: F. elatior.  Wild. Seed.


PI 516571. Festuca rubra L.  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516572. Genista pseudopilosa Cosson  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516573 to 516583. Hedysarum coronarium L.  FABACEAE  French honeysuckle

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**PI 516573**  
**donor id:** GR 249.  **origin:** UNKNOWN.  **remarks:** Originally from GTZ Deutsche Geselleschaft fur Technische Zusammenarbeit. Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.

**PI 516574**  
**donor id:** GR 250.  **origin:** Morocco.  **locality:** M'Da, 20km from Ouezzane.  **remarks:** Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.

**PI 516575**  
**donor id:** GR 251.  **origin:** Morocco.  **other id:** GTZ no. 9772.  **remarks:** Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.

**PI 516576**  
**donor id:** GR 252.  **origin:** Morocco.  **cultivar:** SPARACIA.  **remarks:** Donated by Mustapha Bounjemate, INRA. Cultivar. Seed.

**PI 516577**  
**donor id:** GR 427.  **origin:** Morocco.  **collected:** July 13, 1983.  **locality:** Along drainage in field at M'Da Forestry Nursery, 15km W of Ouezzane.  **elevation:** 200m.  **remarks:** Local wild population. Wild. Seed.

**PI 516578**  
**donor id:** GR 598.  **origin:** Morocco.  **collected:** July 25, 1983.  **locality:** Near the M'Da Seed Farm.  **elevation:** 800m.  **remarks:** Donated by Dr. Jaritz, DGZ, Rabat. Wild. Seed.

**PI 516579**  
**donor id:** GR 599.  **origin:** Morocco.  **collected:** July 25, 1983.  **other id:** Villax 9772.  **remarks:** Donated by Dr. Jaritz, DGZ, Rabat. Originally collected 25 years ago by Dr. Villax in Morocco. Flowers red. Cultivated. Seed.

**PI 516580**  
**donor id:** GR 827.  **origin:** Morocco.  **collected:** August 08, 1983.  **locality:** Heavy clay-loam soil, 17km S of Tangiers off Road P 2 and W of airport.  **elevation:** 25m.  **remarks:** 800mm precipitation zone. Wild. Seed.

**PI 516581**  
**donor id:** GR 829.  **origin:** Morocco.  **collected:** August 09, 1983.  **locality:** Rocky hillside, 20km E of Tangiers on Road S 704.  **elevation:** 50m.  **remarks:** Ecotype 1. Wild. Seed.
PI 516573 to 516583-continued


PI 516584 to 516588.  Hippocrepis scabra DC.  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516589 to 516590.  Hippocrepis sp.  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516589 to 516590-continued


PI 516590  donor id: GR 325. origin: Morocco. collected: July 06, 1983. locality: Shallow red brown soil, heavily grazed site, 15.5km NW of Maaziz on S 204. elevation: 450m. Annual. Wild. Seed.

PI 516591. Hordeum bulbosum L. POACEAE Bulbous barley

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516592. Hordeum vulgare L. POACEAE Barley

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516593 to 516598. Hyparrhenia hirta (L.) Stapf POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516593 to 516598—continued


PI 516596  donor id: GR 419.  origin: Morocco.  collected: July 12, 1983.  locality: 5km S of junction of Roads P 39 and P 28, 8km S of Chechaouen.  elevation: 500m.  Wild.  Seed.


PI 516598  donor id: GR 839.  origin: Morocco.  collected: August 09, 1983.  locality: Coastal region, heavy caliche soil, 1 km E of Tangiers on Road S 704.  elevation: 30m.  remarks: 800mm precipitation zone.  Wild.  Seed.

PI 516599.  Hyparrhenia sp.  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.


PI 516600.  Koeleria sp.  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.

PI 516601. Koeleria splendens C. Presl POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

donor id: GR 571. origin: Morocco. collected: July 22, 1983. locality: Oak woodland forest, 50km SE of Khenifra on Road P 33 near Tanout-ou-Fillali. elevation: 1900m. Wild. Seed.

PI 516602 to 516603. Lavandula sp. LAMIACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516604. Lepidium sp. BRASSICACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516605 to 516606. Lolium perenne L. POACEAE Perennial ryegrass

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516605 to 516606-continued


PI 516606  donor id: GR 684.  origin: Morocco.  collected: July 31, 1983.  locality: Mountain meadow site near Msenrir, 70km N of Boumlane on Road 3444 at Taghzout Ait Marghad, Ouazarzate.  elevation: 2100m.  Wild.  Seed.

PI 516607 to 516608.  Lolium sp.  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516608  donor id: GR 169.  origin: Morocco.  collected: July 05, 1983.  other id: MG 160683-1008.  source: ICARDA, Aleppo, Syria.  other id: IFG 1145.  locality: Flat grassland, sandy loam soil over sandstone, 7km from Ben-Slimane, Bouznika, Ben Slimane.  elevation: 150m.  remarks: 480mm ppt/yr.  Donated by Mustapha Bounjemate, INRA.  Wild.  Seed.

PI 516609 to 516612.  Lotus corniculatus L.  FABACEAE  Birdsfoot trefoil

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516609  donor id: GR 313.  origin: Morocco.  collected: July 06, 1983.  locality: 3km S of Oulmes on Road 2516.  Wild.  Seed.

PI 516610  donor id: GR 496.  origin: Morocco.  collected: July 18, 1983.  locality: Volcanic origin soil loam, Shale Oil Project Road, 7km W from Road P 21, 10km S of Timhadite, Timhadite.  elevation: 1600m.  remarks: 800 ppt/yr.  Wild.  Seed.
PI 516609 to 516612-continued


PI 516613. Lotus creticus L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516614 to 516616. Lotus cytisoides L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516616  donor id: GR 730. origin: Morocco. collected: August 02, 1983. locality: 156km NE of Agadir on Road S 501. elevation: 1575m. received as: Lotus prostratus. Wild. Seed.
PI 516617 to 516618. Lotus ornithopodioides L. FABACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**PI 516617**
- **donor id:** GR 96.
- **origin:** Morocco.
- **collected:** July 05, 1983.
- **other id:** MG 130683-0309.
- **source:** ICARDA, Aleppo, Syria.
- **other id:** IFLT 38.
- **locality:** Sandy loam over gneiss, roadside, 45 km from Rabat, Rommani, Khemisset.
- **elevation:** 200m.
- **remarks:** 480 mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

**PI 516618**
- **donor id:** GR 382.
- **origin:** Morocco.
- **collected:** July 07, 1983.
- **locality:** Zitouna, on Road 2641, 45 km SW of Chechaouen.
- **elevation:** 200m.
- **Annual. Wild. Seed.**

PI 516619 to 516621. Lotus sp. FABACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**PI 516619**
- **donor id:** GR 32.
- **origin:** Morocco.
- **collected:** July 04, 1983.
- **locality:** Sand, hill above beach, Mehdiya Plage, N of Rabat.
- **elevation:** 25m.
- **Annual. Wild. Seed.**

**PI 516620**
- **donor id:** GR 324.
- **origin:** Morocco.
- **collected:** July 06, 1983.
- **locality:** Shallow red brown soil, heavily grazed site, 15.5 km NW of Maaziz on S 204.
- **elevation:** 450m.
- **Annual. Wild. Seed.**

**PI 516621**
- **donor id:** GR 575.
- **origin:** Morocco.
- **collected:** July 23, 1983.
- **locality:** Rocky soil, bank of mountain stream, 5 km E of Midelt turn off on Tounfite to Imilchil Road 3425.
- **elevation:** 1800m.
- **received as:** L. roudaire. Wild. Seed.

PI 516622 to 516630. Lupinus albus L. FABACEAE White lupine

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516622 to 516630-continued


PI 516631 to 516638. Lupinus luteus L. FABACEAE Yellow lupine

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516631 to 516638-continued


PI 516639. Lupinus sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516640. Medicago arborea L. FABACEAE Tree alfalfa

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516641 to 516643. Medicago ciliaris (L.) All. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516642  donor id: GR 825.  origin: Morocco.  collected: August 08, 1983.  locality: Heavy clay-loam soil, 17km S of Tangiers off Road P 2 at SNDE Farm, SW of Airport.  elevation: 25m.  remarks: 800mm precipitation zone.  Wild.  Seed.

PI 516643  donor id: GR 841.  origin: Morocco.  collected: August 09, 1983.  locality: Heavy caliche basic soil, roadside, 72km W of Tetouan on Road P 37.  elevation: 50m.  remarks: 600mm precipitation zone.  Wild.  Seed.

PI 516644. Medicago constricta Durieu FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516645 to 516648. Medicago hybrid FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516645 to 516648-continued


PI 516649 to 516652. Medicago intertexta (L.) Miller FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986. 


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PI 516649 to 516652-continued


PI 516653 to 516679. Medicago laciniata (L.) Miller FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516655 donor id: GR 144. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0901. source: ICARDA, Aleppo, Syria. other id: IFMA 3005. locality: Undulating hills, grassland, rocky soil over limestone and sandstone, 5km from Souk-de-Poum-Jemaa to Bzou, Azilal. elevation: 1100m. remarks: 400mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
PI 516653 to 516679—continued

PI 516656  donor id: GR 146.  origin: Morocco.  collected: July 05, 1983.  other id: MG 150683-1001.  source: ICARDA, Aleppo, Syria.  other id: IFMA 3008.  locality: Valley bottom, grassland, sandy loam over limestone and sandstone, 34 km from Souk-de-Foum-Jemaa to Bzou, Azilal.  elevation: 1000 m.  remarks: 350 mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.


PI 516659  donor id: GR 175.  origin: Morocco.  collected: July 05, 1983.  other id: BWM 200683-0501.  source: ICARDA, Aleppo, Syria.  other id: IFMA 3059.  locality: Level grassland, clay soil over limestone, 42 km from Seltat to Skhour-des-Rehamna, El Kela.  elevation: 375 m.  remarks: 270 mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.


PI 516662  donor id: GR 183.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 200683-0901.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3073.  
locality: Level roadside, clay loam over limestone, 17km from Benguerir to Marrakech, Marrakech, El Kelaa.  
elevation: 450m.  
remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA.  
Wild. Seed.

PI 516663  donor id: GR 184.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 200683-1001.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3076.  
locality: Level roadside, clay soil over limestone, 32km from Benguerir to Marrakech, Marrakech, El Kelaa.  
elevation: 450m.  
remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA.  
Wild. Seed.

PI 516664  donor id: GR 185.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 200683-1101.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3077.  
locality: Level, wooded site, clay loam soil over limestone, 10km from Sidi-Bou-Othmane to Marrakech, Marrakech, El Kelaa.  
elevation: 450m.  
remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA.  
Wild. Seed.

PI 516665  donor id: GR 187.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 210683-0101.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3078.  
locality: Level, wooded site, clay loam soil over limestone, 5km from Marrakech to Demnate through Sidi Rahhal.  
elevation: 450m.  
remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA.  
Wild. Seed.

PI 516666  donor id: GR 190.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 210683-0401.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3087.  
locality: Hilly roadside, clay loam soil over limestone, 1km from Sidi Rahhal to Demnate, Marrakech.  
elevation: 550m.  
remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA.  
Wild. Seed.

PI 516667  donor id: GR 191.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 210683-0402.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3088.  
locality: Hilly roadside, clay loam soil over limestone, 1km from Sidi Rahhal to Demnate.  
elevation: 550m.  
remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA.  
Wild. Seed.


PI 516676 donor id: GR 220. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0702. source: ICARDA, Aleppo, Syria. other id: IFMA 3134. locality: Level grassland, stony soil over limestone, 7km from El Borouj to Ben Ahmad, Settat. elevation: 400m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516677 donor id: GR 222. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0801. source: ICARDA, Aleppo, Syria. other id: IFMA 3138. locality: Hilly area, grassland, clay loam over limestone, 18km from El Borouj to Ben Ahmad, Sihajjaj, Settat. elevation: 400m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.


PI 516680 to 516696. Medicago littoralis Rohde ex Lois. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516682 donor id: GR 56. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-0804. source: ICARDA, Aleppo, Syria. other id: IFMA 2899. locality: Flat roadside, sandy loam, 28km from Sidi-Bettache to Ben-Slimane, 5km from Ben-Slimane, Casablanca. elevation: 100m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516683 donor id: GR 60. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-1101. source: ICARDA, Aleppo, Syria. other id: IFMA 2908. locality: Level fallow, limestone, sandy soil, 40km from Casablanca, Had Soualena, Al Jadida. elevation: 50m. remarks: 360mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.


PI 516680 to 516696-continued

PI 516693  donor id: GR 221.  origin: Morocco.  collected: July 05, 1983.  other id: BWM 220683-0703.  source: ICARDA, Aleppo, Syria.  other id: IFMA 3136.  locality: Level grassland, clay loam over limestone, 7km from El Borout ben Aamad to Sidi Hajjaj, Settat.  elevation: 400m.  remarks: 250mm ppt/yr.  Donated by Mustapha Bounjemate, INRA.  Wild.  Seed.


PI 516696  donor id: GR 819.  origin: Morocco.  collected: August 08, 1983.  locality: Beach habitat, 34km S of Tangiers on Road P 2 at Asilah Beach.  elevation: 5m.  Wild.  Seed.

PI 516697 to 516706. Medicago lupulina L.  FABACEAE  Black medic

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.


PI 516698  donor id: GR 495.  origin: Morocco.  collected: July 18, 1983.  locality: Shale oil project road seep area, loam (volcanic origin soil), 7km W of hwy P 21, 10km S of Timhadite.  elevation: 1600m.  remarks: 800+mm ppt/yr.  Wild.  Seed.


PI 516702 donor id: GR 527. origin: Morocco. collected: July 20, 1983. locality: Sinkhole, rocky loam soil, 3km W of junction of Roads P 3390 and P 21, 18km S of Azrou on Road 3390. elevation: 1875m. remarks: 800mm ppt/yr. Wild. Seed.


PI 516706 donor id: GR 689. origin: Morocco. collected: July 31, 1983. locality: Mountain meadow, 70km N of Boumalne on Road 3444 by Msemrir, Ouarzazate. elevation: 2100m. Wild. Seed.

PI 516707 to 516712. Medicago marina L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516710 donor id: GR 818. origin: Morocco. collected: August 08, 1983. locality: Beach front sand dune habitat, 4km S of Tangiers on Road P 2 at Asilah Beach. elevation: 5m. remarks: One plant. Wild. Seed.
PI 516707 to 516712-continued

PI 516711 donor id: GR 833. origin: Morocco. collected: August 09, 1983. locality: Mediterranean Sea beach sand dune, 21km E of Tangiers on Road S 704. elevation: 10m. remarks: 800mm ppt/yr. Wild. Seed.

PI 516712 donor id: GR 851. origin: Morocco. collected: August 11, 1983. locality: Coarse beach sand about 50m from ocean, 37km S of Rabat at Bouznika Plage. elevation: 10m. Wild. Seed.

PI 516713 to 516719. Medicago minima (L.) Bartal. FABACEAE Little burclover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516714 donor id: GR 127. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0103. source: ICARDA, Aleppo, Syria. other id: IFMA 2989. locality: Rolling hills, wooded area, clay loam over limestone, 42km from Beni Mellal to Azilal, Azilal. elevation: 1600m. remarks: 650mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.

PI 516715 donor id: GR 133. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0402. source: ICARDA, Aleppo, Syria. other id: IFMA 2996. locality: Hilly country, rocky soil, roadside 10km from Ben-el-Ouidane to Azilal, Azilal. elevation: 1200m. remarks: 550mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.

PI 516716 donor id: GR 139. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0801. source: ICARDA, Aleppo, Syria. other id: IFMA 3002. locality: Undulating hills, wooded site, clay loam over limestone, 8km from Tanannt to Bzou. elevation: 1200m. remarks: 500mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.
PI 516713 to 516719-continued


PI 516718  donor id: GR 458.  origin: Morocco.  collected: July 15, 1983.  locality: Heavily grazed area, 5km NW of Aknoul near Forest Service Station at Road S 304.  elevation: 1100m.  Wild.  Seed.


PI 516720 to 516721.  Medicago murex Willd.  FABACEAE

Donated by:  Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.

PI 516720  donor id: GR 74.  origin: Morocco.  collected: July 05, 1983.  other id: SMJ 110683-0604.  source: ICARDA, Aleppo, Syria.  other id: IFMA 2927.  locality: Level, sandy soil, roadside 18km from Bir-Jdid to Berrechid, Casablanca, Settat.  elevation: 100m.  remarks: 350mm ppt/yr.  Donated by M. Bounjemate, INRA.  Wild.  Seed.

PI 516721  donor id: GR 170.  origin: Morocco.  collected: July 05, 1983.  other id: BWM 200683-0101.  source: ICARDA, Aleppo, Syria.  other id: IFMA 3047.  locality: Level, sandy loam, roadside 45km from Rabat to Casablanca on Road #1, Rabat.  elevation: <50m.  remarks: 500mm ppt/yr.  Donated by M. Bounjemate, INRA.  Wild.  Seed.

PI 516722 to 516727.  Medicago orbicularis (L.) Bartal.  FABACEAE

Buttonclover medic

Donated by:  Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.
PI 516722 to 516727—continued

PI 516722
donor id: GR 141. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0803. source: ICARDA, Aleppo, Syria. other id: IFMA 3004. locality: Hilly, wooded site (pine), clay loam over limestone, 8km from Tanannt to Bzou, Azilal. elevation: 1200m. remarks: 500mm ppt/yr. Donated by M. Bounjemate, INRA. Originally from ICARDA, Aleppo, Syria. Wild. Seed.

PI 516723

PI 516724

PI 516725
donor id: GR 289. origin: Morocco. collected: July 06, 1983. locality: Forest area, 32km SE of Tiflet. elevation: 300m. Wild. Seed.

PI 516726

PI 516727

PI 516728 to 516735. *Medicago polymorpha* L. FABACEAE California burclover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516728 to 516735-continued

PI 516728  donor id: GR 55.  origin: Morocco.  collected: July 05, 1983.  other id: SMJ 100683-0803.  source: ICARDA, Aleppo, Syria.  other id: IFMA 2898.  locality: Flat, sandy loam, roadside, 28km from Sidi-Bettache to Ben-Slimane, 5km from Ben-Slimane, Rabat, Casablanca.  elevation: 100m.  remarks: 480mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.


PI 516731  donor id: GR 286.  origin: Morocco.  collected: July 06, 1983.  locality: Vineyard with grapes, 16km SE of Tiflet.  elevation: 300m. Wild. Seed.


PI 516733  donor id: GR 688.  origin: Morocco.  collected: July 31, 1983.  locality: 47km E of Ouarzazate and 5km E of Skoura on Road P 32.  elevation: 1400m.  remarks: Small seed supply. 100-150mm precipitation zone. Wild. Seed.


PI 516736. *Medicago polymorpha* var. *vulgare* (Benth.) Shinn. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

donor id: GR 406. origin: Morocco. collected: July 12, 1983. locality: Weedy field, Forest Service land, N of Ouezzane at M.F. de Bellotu. elevation: 150m. received as: Received as *M. hispida*. Wild. Seed.

PI 516737 to 516753. *Medicago rigidula* (L.) All. FABACEAE Tifton burclover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516738 donor id: GR 115. origin: Morocco. collected: July 05, 1983. other id: MG 140683-0401. source: ICARDA, Aleppo, Syria. other id: IFMA 2979. locality: Gentle rolling hills, loamy soil over basalts, 10km from Azilal to Ait-Mohammed, Azilal. elevation: 1850m. remarks: 600mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.


PI 516742  donor id: GR 140. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0802. source: ICARDA, Aleppo, Syria. other id: IFMA 3003. locality: Hilly, wooded site (pine), clay loam over limestone, 8km from Tanannt Road, Azilal. elevation: 1200m. remarks: 500mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.

PI 516743  donor id: GR 145. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0902. source: ICARDA, Aleppo, Syria. other id: IFMA 3006. locality: Undulating hills, grassland, rocky soil over limestone and sandstone, 5km from Souk-de-Foum-Jemaa to Bzou, Azilal. elevation: 1100m. remarks: 400mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.

PI 516744  donor id: GR 203. origin: Morocco. collected: July 05, 1983. other id: BWM 210683-0903. source: ICARDA, Aleppo, Syria. other id: IFMA 3007. locality: Level roadside, clay loam over limestone, 20km from Demnate to Marrakech. elevation: 800m. remarks: 400mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.


PI 516748  donor id: GR 393. origin: Morocco. collected: July 12, 1983. locality: Near house of Secretary General, Chechaouen. elevation: 610m. Wild. Seed.


PI 516751 donor id: GR 459. origin: Morocco. collected: July 15, 1983. locality: Heavily grazed area, 5km NW of Aknoul near Forest Service Station, 1 km S of Road S 304. elevation: 1100m. remarks: Spineless. Wild. Seed.


PI 516754 to 516905. Medicago sativa L. FABACEAE Alfalfa

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516754 donor id: GR 346. origin: Morocco. collected: July 08, 1983. locality: Irrigated field border adjacent to Seed Farm, 60km SE of El-Jadida on Road 1347, Khemis-Mtoun. elevation: 350m. Wild. Seed.


PI 516757 donor id: GR 559. origin: Morocco. collected: July 21, 1983. locality: Agourai, 31km S of Meknes. elevation: 850m. remarks: Originally from Rissani-Ait-Riss, bought by Mr. Idriss. Local population, 1 m tall, very good production. Cultivated. Seed.


PI 516754 to 516905—continued


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PI 516754 to 516905-continued


PI 516754 to 516905—continued


PI 516853  
**donor id:** GR 724.  
**origin:** Morocco.  
**collected:** August 01, 1983.  
**locality:** Draa zone, 164km S of Ouarzazate on Road P 31, Zagora, Ouarzazate.  
**elevation:** 750m.  

PI 516854  
**donor id:** GR 725.  
**origin:** Morocco.  
**collected:** August 01, 1983.  
**locality:** Draa zone, 164km S of Ouarzazate on Road P 31, Zagora, Ouarzazate.  
**elevation:** 750m.  

PI 516855  
**donor id:** GR 726.  
**origin:** Morocco.  
**collected:** August 01, 1983.  
**locality:** Draa zone, 120km S of Ouarzazate on Road P 31, Tinzouline, Ouarzazate.  
**elevation:** 750m.  

PI 516856  
**donor id:** GR 727.  
**origin:** Morocco.  
**collected:** August 01, 1983.  
**locality:** Draa zone, 120km S of Ouarzazate on Road P 31, Village Amerdoul, Tinzouline, Ouarzazate.  
**elevation:** 750m.  

PI 516857  
**donor id:** GR 735.  
**origin:** Morocco.  
**collected:** August 02, 1983.  
**locality:** Mountain zone, 62km W of Ouarzazate, Anezzal.  
**elevation:** 1625m.  

PI 516858  
**donor id:** GR 736.  
**origin:** Morocco.  
**collected:** August 02, 1983.  
**locality:** 163km E of Agadir on Road P 32 at Aoulouz.  
**elevation:** 800m.  

PI 516859  
**donor id:** GR 737.  
**origin:** Morocco.  
**collected:** August 02, 1983.  
**locality:** Market, 3km E from Agadir on Road P 32, Village Aoulouz, Agadir.  
**elevation:** 800m.  
**remarks:** 1982 seed crop. Donated by Ben Mohamed. Cultivated. Seed.

PI 516860  
**donor id:** GR 738.  
**origin:** Morocco.  
**collected:** August 02, 1983.  
**locality:** Farm, mountain zone, 5km W of Ouarzazate on Road P 32, Talouine.  
**elevation:** 1150m.  
**remarks:** 1982 seed crop. Donated by Oulabass Mohamed. Cultivated. Seed.

PI 516861  
**donor id:** GR 740.  
**origin:** Morocco.  
**collected:** August 02, 1983.  
**locality:** Farm, mountain zone, 5km W of Ouarzazate on Road 6810, Village Tislite Ait Douchane, Tazenakhte, Ouarzazate.  
**elevation:** 1150m.  


PI 516754 to 516905-continued


PI 516906. Medicago sativa subsp. glomerata (Balbis) Rouy FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516907. Medicago scutellata (L.) Miller FABACEAE Snail medic

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516908 to 516911. Medicago sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 516908 to 516911—continued

PI 516908  
donor id: GR 29.  
origin: Morocco.  
collected: July 04, 1983.  
locality: Coastal scrub, 4km from Mehdiya Plage. Annual.  
Wild.  
Seed.

PI 516909  
donor id: GR 198.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 210683-0702.  
source: ICARDA,  
Aleppo, Syria.  
locality: Roadside, rolling hills, northern exposure, sandy loam over sandstone, 4km from Demnate to El-Kelaa-Srahna.  
elevation: 1200m.  
remarks: Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.

PI 516910  
donor id: GR 201.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 210683-0901.  
source: ICARDA,  
Aleppo, Syria.  
other id: IFMA 3103.  
locality: Level roadside, clayloam over limestone, 20km from Demnate to Marrakech, Azilal.  
elevation: 800m.  
remarks: Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.

PI 516911  
donor id: GR 204.  
origin: Morocco.  
collected: July 05, 1983.  
other id: BWM 210683-1001.  
source: ICARDA,  
Aleppo, Syria.  
locality: Roadside, clayloam over limestone, 3km from Attaouia to El-Kelaa Srahna, El Kelaa.  
elevation: 700m.  
remarks: Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.

PI 516912 to 516915. Medicago suffruticosa Ramond ex DC.  
FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab.,  
USDA-ARS, Utah State University, Logan, Utah, United States;  
and Graves, W., Cooperative Agricultural Extension, 5556 Overland  
Avenue, Building 4, San Diego, California, United States.  
Received January 1986.

PI 516912  
donor id: GR 500.  
origin: Morocco.  
collected: July 18, 1983.  
locality: Cedar forest, rocky loam soil, heavily grazed area, 1 km E of Mischliffen on Road 3206.  
elevation: 1950m.  
remarks: 1000+mm ppt/yr.  
Wild.  
Seed.

PI 516913  
donor id: GR 502.  
origin: Morocco.  
collected: July 19, 1983.  
locality: Cedar forest on hill side below road to ski lift, heavily grazed area, 1 km W of Mischliffen on Road 3206, SE of Azrou.  
elevation: 1950m.  
Wild.  
Seed.

PI 516914  
donor id: GR 531.  
origin: Morocco.  
collected: July 20, 1983.  
locality: Cedar forest, 11km W of junction of Roads P 3390 and P 21, S of Azrou.  
elevation: 1875m.  
remarks: Plants abundant.  
Wild.  
Seed.
PI 516915 donor id: GR 561. origin: Morocco. collected: July 22, 1983. locality: Deciduous forest, sandy loam soil, grazed area, 2km S of Ain-Leuh, 32km S of Azrou on Road S 303. elevation: 1560m. Wild. Seed.

PI 516916 to 516922. Medicago italica (Miller) Fiori FABACEAE Medic

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516922 donor id: GR 364. origin: Morocco. collected: July 10, 1983. locality: Sandy soil, 0.4km from coast, 35km N of Sale, Mehdiya-Plage. elevation: 10m. Wild. Seed.

PI 516923 to 516950. Medicago truncatula Gaertner FABACEAE Barrelclover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516934  
donor id: GR 100.  
origin: Morocco.  
collected: July 05, 1983.  
other id: MG 130683-0502.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 2966.  
locality: Fallow, level roadside, sandy loam, 63km from Rommani to Oued-Zem, Khouribga.  
elevation: 400m.  
remarks: 320mm ppt/yr.  
Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.

PI 516935  
donor id: GR 147.  
origin: Morocco.  
collected: July 05, 1983.  
other id: MG 150683-1002.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3009.  
locality: Valley bottom, grassland, sandy loam over limestone and sandstone, 34km from Souk-de-Foum-Jemaa to Bzou, Azilal.  
elevation: 1000m.  
remarks: 350mm ppt/yr.  
Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.

PI 516936  
donor id: GR 153.  
origin: Morocco.  
collected: July 05, 1983.  
other id: MG 160683-0103.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3017.  
locality: Flat, cropland, clayloam soil, 22km from Beni Mellal to Fgih-ben-Salah, Fgih-ben-Salah, Beni Mellal.  
elevation: 400m.  
remarks: 300mm ppt/yr.  
Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.

PI 516937  
donor id: GR 157.  
origin: Morocco.  
collected: July 05, 1983.  
other id: MG 160683-0402.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3022.  
locality: Hilly grassland, sandy loam over limestone, 26km from Fgih-ben-Salah to Rhouribga, Fgih-ben-Salah, Beni Mellal.  
elevation: 400m.  
remarks: 250mm ppt/yr.  
Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.

PI 516938  
donor id: GR 163.  
origin: Morocco.  
collected: July 05, 1983.  
other id: MG 160683-0802.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3037.  
locality: Level grassland, clayloam over limestone, 10km from junction of Benahmed and El-Gara, Settat.  
elevation: 350m.  
remarks: 350mm ppt/yr.  
Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.

PI 516939  
donor id: GR 164.  
origin: Morocco.  
collected: July 05, 1983.  
other id: MG 160683-1001.  
source: ICARDA, Aleppo, Syria.  
other id: IFMA 3043.  
locality: Level grassland, loamy soil over sandstone, 7km from Beni Sliman to Bouznika, Beni Sliman.  
elevation: 150m.  
remarks: 480mm ppt/yr.  
Donated by Mustapha Bounjemate, INRA.  
Wild.  
Seed.


PI 516945 donor id: GR 290. origin: Morocco. collected: July 06, 1983. locality: Forest, protected from grazing, 32km SE of Tiflet. elevation: 300m. Wild. Seed.

PI 516946 donor id: GR 318. origin: Morocco. collected: July 06, 1983. locality: Red loam soil, slightly alkaline, 1 km N of Tiddas on Road S 209 to Maziz. elevation: 500m. Wild. Seed.

PI 516947 donor id: GR 323. origin: Morocco. collected: July 06, 1983. locality: Shallow red-brown soil, heavily grazed area, 15.5km NW of Maaziz on Road S 204. elevation: 450m. Wild. Seed.
PI 516923 to 516950—continued


PI 516951 to 516978. Medicago turbinata (L.) All. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516952 donor id: GR 46. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-0301. source: ICARDA, Aleppo, Syria. other id: IFMA 2881. locality: South-facing slope, forest margin, undulating terrain, sandstone, sandy loam, Bridge crossing, National Hwy #1, River Ekem, Rabat. elevation: <50m. remarks: 530mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516953 donor id: GR 54. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-0802. source: ICARDA, Aleppo, Syria. other id: IFMA 2897. locality: Flat roadside, sandy loam, 28km from Sidi Bettache, 5km from Ben Slimane, Rabat, Casablanca. elevation: 100m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.


PI 516956  donor id: GR 73.  origin: Morocco.  collected: July 05, 1983.  other id: SMJ 110683-0603.  source: ICARDA, Aleppo, Syria.  other id: IFMA 2926.  locality: Level roadside, sandy soil, 18km from Bir Jdid to Berrechid, Casablanca, Settat.  elevation: 100m.  remarks: 350mm ppt/yr. Donated by Mustapha Bounjemate, INRA.  Wild.  Seed.


PI 516951 to 516978-continued

PI 516961 donor id: GR 110. origin: Morocco. collected: July 05, 1983. other id: MG 140683-0301. source: ICARDA, Aleppo, Syria. other id: IFMA 2977. locality: Forest margin, undulating surface, clay loam over limestone and sandstone, 24km from Azilal to Ait-Mohammed, Azilal. elevation: 1640m. remarks: 600mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.


PI 516963 donor id: GR 131. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0302. source: ICARDA, Aleppo, Syria. other id: IFMA 2993. locality: Roadside, gently rolling hills, sandy loam over limestone and sandstone, 5km from Bin-el-Ouidane to Ouaduzarht, Azilal. elevation: 1000m. remarks: 500mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516964 donor id: GR 138. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0701. source: ICARDA, Aleppo, Syria. other id: IFMA 3001. locality: Level roadside, clay loam soil, 43km from Azilal to Marrakech on Tanannt Road, Azilal. elevation: 1100m. remarks: 500mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.


PI 516966 donor id: GR 165. origin: Morocco. collected: July 05, 1983. other id: MG 160683-1002. source: ICARDA, Aleppo, Syria. other id: IFMA 3044. locality: Level grassland, loamy soil over sandstone, 7km from Ben- Simlan to Bouznika, Rabat, Ben Sliman. elevation: 150m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.


PI 516969 donor id: GR 229. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-1002. source: ICARDA, Aleppo, Syria. other id: IFMA 3148. locality: Level roadside, clay loam soil over limestone, 30km from Benahmad to Berrached, Settat. elevation: 400m. remarks: 400mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516970 donor id: GR 281. origin: Morocco. collected: July 06, 1983. locality: Drainage way near highway, heavily grazed, 15km SE of Tiflet. elevation: 300m. Wild. Seed.

PI 516971 donor id: GR 320-A. origin: Morocco. collected: July 06, 1983. locality: Shallow red brown soil, heavily grazed, slopes to south, 15.5km NW of Maaziz on Road S 204. elevation: 450m. Wild. Seed.

PI 516972 donor id: GR 320-B. origin: Morocco. collected: July 06, 1983. locality: Shallow red brown soil, heavily grazed, slopes to south, 15.5km NW of Maaziz on Road S 204. elevation: 450m. Wild. Seed.


PI 516974 donor id: GR 381. origin: Morocco. collected: July 11, 1983. locality: Tall fescue seed field, 22km W of Ouezzane on Road P 23. elevation: 200m. remarks: 800mm ppt/yr. Wild. Seed.


PI 516978  donor id: GR 842.  origin: Morocco.  collected: August 09, 1983.  locality: Sorghum production site, 72km W of Tetouan on Road P 37.  elevation: 50m.  Wild.  Seed.

PI 516979 to 516984. Melica ciliata L.  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516982  donor id: GR 292.  origin: Morocco.  collected: July 06, 1983.  locality: Forest protected from grazing, 32km SE of Tiflet.  elevation: 300m.  Wild.  Seed.
PI 516979 to 516984-continued


PI 516985. Melica sp.  POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516986. Melilotus italic (L.) Lam.  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516987. Melilotus sp.  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 516988. Moricandia arvensis subsp. suffruticosa (Desf.) Maire

BRASSICACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516989 to 516993. Onobrychis argentea Boiss. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


donor id: GR 553. origin: Morocco. collected: July 20, 1983. locality: 13km E of jct of Roads P 24 and 4629 on Road 4630, 29km NE of Ifrane. elevation: 1625m. Wild. Seed.


PI 516994. Onobrychis sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

donor id: GR 244. origin: Morocco. collected: July 05, 1983. other id: MG 140683-06. source: ICARDA, Aleppo, Syria. locality: Undulating cropland, eastern exposure, sandy loam over limestone and sandstone, 19km from Bin-el-Ouidan to Beni- Mellal, Azilal. elevation: 1100m. remarks: 520mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516995. Ononis natrix L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516996 to 516997. Ononis sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516998 to 517000. Ornithopus compressus L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 516999 donor id: GR 449. origin: Morocco. collected: July 14, 1983. locality: Forest Service Station, 14km W of Bab-Berred on Road P 39, 56km E of Chechaouen. elevation: 1400m. remarks: High elevation ecotype. Wild. Seed.

PI 517000 donor id: GR 807. origin: Morocco. collected: August 07, 1983. locality: Cork oak forest, rocky loam soil, 9km S of Rommani on Road P 22. elevation: 600m. remarks: 500mm ppt/yr. Soil basic pH. Wild. Seed.

PI 517001. Ornithopus pinnatus (Miller) Druce FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517002 to 517003. Ornithopus sativus Brot. FABACEAE Serradella

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517004 to 517006. Oryzopsis caerulescens (Desf.) Hackel POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517004 donor id: GR 472. origin: Morocco. collected: July 15, 1983. locality: Steep slope, 8km S of Tizi-Ouzli on Road S 312, N of Aknoul. elevation: 1225m. remarks: May be good for mine spoil bank reclamation. Wild. Seed.

PI 517005 donor id: GR 552. origin: Morocco. collected: July 20, 1983. locality: Basic soil, 13km E of junction of Road P 24 and 4629 on Road 4630, 29km NE of Ifrane. elevation: 1625m. Wild. Seed.


PI 517007 to 517015. Oryzopsis miliacea (L.) Benth. & Hook. POACEAE

Smilograss

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517007 donor id: GR 344. origin: Morocco. collected: July 08, 1983. locality: Along irrigation ditch at seed farm, 60km SE of El Jadida on Road 1347, Khemis-mtouh. elevation: 350m. remarks: Average ppt. 400mm. Soil pH 7.2. Wild. Seed.


PI 517011  donor id: GR 463.  origin: Morocco.  collected: July 15, 1983.  locality: Grazed area, 5km NW of Aknoul near Forest Service Station, 1 km S of Road S 304.  elevation: 1100m.  remarks: Last 3 years below normal ppt.  Wild.  Seed.


PI 517013  donor id: GR 777.  origin: Morocco.  collected: August 04, 1983.  locality: 98km W of Marrakech and 23km N of Chichaoua on Road S 511, Marrakech.  elevation: 250m.  remarks: 175mm precipitation zone.  Wild.  Seed.


PI 517015  donor id: GR 832.  origin: Morocco.  collected: August 09, 1983.  locality: Heavy caliche soil, rocky, neutral to slightly basic. 20km E of Tangiers on Road S 704.  elevation: 50m.  remarks: 800mm precipitation zone.  Wild.  Seed.

PI 517016 to 517019.  Panicum miliaceum L.  POACEAE  Proso millet

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.


PI 517019

**Donor ID:** GR 665. **Origin:** Morocco. **Collected:** July 30, 1983. **Locality:** Road 6849 at Ilaghimane, Ouarzazate. **Remarks:** Grown by Mohamed Ben Lahcen Ait Hmidun Said. Cultivated. Seed.

**Origin:** Morocco, **Collected:** July 30, 1983. **Locality:** Road 6849 at Ilaghimane, Ouarzazate. **Remarks:** Grown by Mohamed Ben Lahcen Ait Hmidun Said. Cultivated. Seed.

**Origin:** Morocco, **Collected:** July 30, 1983. **Locality:** Road 6849 at Ilaghimane, Ouarzazate. **Remarks:** Grown by Mohamed Ben Lahcen Ait Hmidun Said. Cultivated. Seed.

PI 517020. *Pennisetum divisum* (Forsk. ex Gmel.) Henr. POACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**Donor ID:** GR 629. **Origin:** Morocco. **Collected:** July 29, 1983. **Locality:** Sand dune, 10km from Tinjdad on Road P 32 near Goulmima, Errachidia. **Elevation:** 1000m. **Remarks:** Sand dune stabilizing species. Received as: *P. dichotomum*. Wild. Seed.

PI 517021 to 517024. *Pennisetum glaucum* (L.) R. Br. POACEAE Pearl millet

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**Donor ID:** GR 672. **Origin:** Morocco. **Collected:** July 30, 1983. **Locality:** Mountain zone, 70km N of Ouarzazate on Road P 31, Agouim, Ouarzazate. **Remarks:** 1982 seed crop. Donated by Saoud Ahmed Ben Mohammed. Received as: *P. typhoides*. Cultivated. Seed.

**Donor ID:** GR 677. **Origin:** Morocco. **Collected:** July 30, 1983. **Locality:** 70km N of Ourzzazate on Road P 31. **Elevation:** 1750m. **Remarks:** 1979 seed crop. Received as: *P. typhoides*. Cultivated. Seed.

**Donor ID:** GR 783. **Origin:** Morocco. **Collected:** August 04, 1983. **Locality:** Coastal desert, 44km E of Agadir on Road P 32, Oulad-Teima, Agadir. **Remarks:** 1982 seed crop. Donated by Ahmed Ben El Houcine. Received as: *P. typhoides*. Cultivated. Seed.

**Donor ID:** GR 792. **Origin:** Morocco. **Collected:** August 05, 1983. **Locality:** Haouz region, 30km E of Marrakech off Road P 31 at Ait-Ouirir. **Elevation:** 650m. **Remarks:** 1982 seed crop. Grown by Hâdî Farîs Garmane. Received as: *P. typhoides*. Cultivated. Seed.
PI 517025. Periploca laevigata Ait. ASCLEPIADACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517026 to 517027. Phalaris aquatica L. POACEAE Bulbous canarygrass

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517026 donor id: GR 23. origin: Morocco. collected: July 04, 1983. locality: 26km N of Rabat on Road P 2. received as: P. tuberosa. Seed.

PI 517027 donor id: GR 442. origin: Morocco. collected: July 14, 1983. locality: Vacant lot by Secretary-General's house, Chechaouen. elevation: 590m. received as: P. tuberosa. Wild. Seed.

PI 517028 to 517029. Phalaris sp. POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517029 donor id: GR 831. origin: Morocco. collected: August 09, 1983. locality: Heavy caliche soil, coastal area, neutral to slightly basic, 20km E of Tangiers on Road S 704. elevation: 50m. remarks: 800mm precipitation zone. Wild. Seed.
PI 517030. Phalaris truncata Guss. POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

donor id: GR 297. origin: Morocco. collected: July 06, 1983. locality: Roadside, 60km SE of Tiflet. elevation: 1000m. remarks: 600mm ppt/yr. Wild. Seed.

PI 517031. Phleum sp. POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517032. Poa bulbosa L. POACEAE Bulbous bluegrass

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517033. Poa ligulata Boiss. POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517034. Retama monosperma (L.) Boiss. FABACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**donor id:** GR 363. **origin:** Morocco. **collected:** July 10, 1983. **locality:** Sand dunes above beach, 35km N of Sale, Mehdiya-Plage. **elevation:** 10-20m. Wild. Seed.

PI 517035 to 517038. Sanguisorba minor ROSACEAE Small burnet

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517035 **donor id:** GR 426B. **origin:** Netherlands. **collected:** July 13, 1983. **locality:** Experimental plots, 15km W of Ouezzane at M'Da Forestry Nursery. **elevation:** 200m. **remarks:** Purchased in Holland. Seed.

PI 517036 **donor id:** GR 520. **origin:** Morocco. **collected:** July 19, 1983. **locality:** Cedar forest, 7km S of Azrou on Road P 21. **elevation:** 1800m. Wild. Seed.

PI 517037 **donor id:** GR 530. **origin:** Morocco. **collected:** July 20, 1983. **locality:** Sink hole, 3km W of jct of Roads P 3390 and P 21, 18km S of Azrou. **elevation:** 1875m. Wild. Seed.

PI 517038 **donor id:** GR 581. **origin:** Morocco. **collected:** July 23, 1983. **locality:** 6km from Midelt turnoff on Tounfite to Imichil Rd W of Midelt. Wild. Seed.

PI 517039. Sanguisorba sp. ROSACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**donor id:** GR 105. **origin:** Morocco. **collected:** July 05, 1983. **other id:** 1306830801. **source:** ICARDA, Aleppo, Syria. **locality:** Flat, level, clay-loam soil over basalt, 10km from Azilal to Beni-Mellal, Jebel Azdour, Azilal. **elevation:** 1700m. **remarks:** 620mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
PI 517040 to 517045. Scorpiurus muricatus L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517041 donor id: GR 17. origin: Morocco. collected: July 03, 1983. locality: 4km from Sidi-Allal-Bahraoui toward Kenitra on Road P 29. received as: S. sulcata. Wild. Seed.


PI 517043 donor id: GR 276. origin: Morocco. locality: Heavily grazed drainage way near hwy, 15km SE of Tiflet on Road S 209. elevation: 300m. Wild. Seed.

PI 517044 donor id: GR 319. origin: Morocco. collected: July 06, 1983. locality: Shallow red loam soil, heavily grazed area, slopes to S, 15.5km NW of Maaziz on Road S 204. elevation: 450m. Wild. Seed.

PI 517045 donor id: GR 837. origin: Morocco. collected: August 09, 1983. locality: Coastal region, heavy caliche soil, eroded, 1 km E of Tangiers on Road S 704. elevation: 30m. remarks: 800mm ppt/yr. Wild. Seed.

PI 517046 to 517050. Scorpiurus vermiculatus L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517046 to 517050-continued


PI 517050  donor id: GR 838.  origin: Morocco.  collected: August 09, 1983.  locality: Coastal region, heavy caliche soil, eroded, 1 km E of Tangiers on Road S 704.  elevation: 30m.  Wild.  Seed.

PI 517051.  Setaria italica (L.) Beauv. POACEAE  Foxtail millet

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517052.  Stipa tenacissima L. POACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517053. Tetragonolobus maritimus var. siliguosus (L.) Dominguez & Galiano FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

donor id: GR 690. origin: Morocco. locality: Mountain meadow site, 70km N of Boumlane on Road 3444 near Msemrir at Taghzout Ait Merghad, Ouarzazate. elevation: 2100m. received as: T. siliguosus. Perennial. Wild. Seed.

PI 517054 to 517068. Trifolium alexandrinum L. FABACEAE Berseem clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517057 donor id: GR 256. origin: Italy. other id: GTZ 6385. locality: Bologna. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.


PI 517054 to 517068-continued


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**PI 517069 to 517074. Trifolium angustifolium L. FABACEAE**

*Donated by:* Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 517069 to 517074

**PI 517069**
**donor id:** GR 10.  **origin:** Morocco.  **collected:** July 03, 1983.  **locality:** Opening in Quercus subra forest, sandy to sandy loam 20km from Sale to Meknes on Road P 1.  Cultivated.  **Seed.**

**PI 517070**
**donor id:** GR 271.  **origin:** Morocco.  **other id:** GTZ 6001.  **remarks:** Native to Morocco.  **Seed.**

**PI 517071**
**donor id:** GR 285.  **origin:** Morocco.  **collected:** July 06, 1983.  **locality:** Heavily grazed, drainage way near hwy, 15km S of Tiflet.  **elevation:** 300m.  Wild.  **Seed.**

**PI 517072**
**donor id:** GR 299.  **origin:** Morocco.  **collected:** July 06, 1983.  **locality:** Orchard, 2km N of Oulmes.  **elevation:** 1200m.  **remarks:** 420mm ppt/yr.  Wild.  **Seed.**

**PI 517073**
**donor id:** GR 412.  **origin:** Morocco.  **collected:** July 12, 1983.  **locality:** Forest Service Project, protected from grazing area, mountains, 17km N of Ouezzane.  **elevation:** 260m.  Wild.  **Seed.**

**PI 517074**
**donor id:** GR 835.  **origin:** Morocco.  **collected:** August 09, 1983.  **locality:** Coastal region, heavy caliche soil, eroded, 1 km E of Tangiers on Road S 704.  **elevation:** 30m.  **remarks:** 800mm ppt/yr.  Wild.  **Seed.**

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**PI 517075 to 517076.** **Trifolium arvense L.**  **FABACEAE**  **Rabbit-foot clover**

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**PI 517075**
**donor id:** GR 410.  **origin:** Morocco.  **collected:** July 12, 1983.  **locality:** 17km N of Ouezzane.  **elevation:** 260m.  Seed.

**PI 517076**
**donor id:** GR 513.  **origin:** Morocco.  **collected:** July 19, 1983.  **locality:** 7km S of Azrou on Road P 21.  **elevation:** 1800m.  Wild.  **Seed.**

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**PI 517077.** **Trifolium bocconei Savi**  **FABACEAE**

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 517077-continued


PI 517078 to 517081. Trifolium campestre Schreber FABACEAE Large hop clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517082 to 517086. Trifolium cherleri L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517082 to 517086-continued

PI 517084  donor id: GR 308.  origin: Morocco.  collected: July 06, 1983.  locality: 3km S of Oulmes on Road P 2516.  Wild.  Seed.


PI 517086  donor id: GR 811.  origin: Morocco.  collected: August 07, 1983.  locality: Doum vegetation site, clay soil, 12km S of Rommani on Road P 22 and 93km S of Rabat.  elevation: 600m.  remarks: 500mm ppt/yr. Soil basic pH.  Wild.  Seed.

PI 517087. Trifolium dubium Sibth.  FABACEAE  Small hop clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

    donor id: GR 488.  origin: Morocco.  collected: July 17, 1983.  locality: Spring, 32km S of Taza on Road S 311, Bab-Boudir.  elevation: 1425m.  remarks: Plants small, 5cm tall. Flowers yellow.  Wild.  Seed.

PI 517088 to 517104. Trifolium fragiferum L.  FABACEAE  Strawberry clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517088 to 517104-continued

PI 517091 donor id: GR 345. origin: Morocco. collected: July 08, 1983. locality: Along drainage ditch at seed farm, Khemis-Mtouh, 60km SE of El Jadida on Road 1347. elevation: 350m. remarks: 400mm ppt/yr. Soil pH 7.2. Wild. Seed.


PI 517093 donor id: GR 368. origin: Morocco. collected: July 10, 1983. locality: Low basin near coast, 1 km E of Moulay-Bousselham, 79km N of Kenitra. elevation: 10m. remarks: Nodule sample obtained. Wild. Seed.


PI 517095 donor id: GR 422. origin: Morocco. collected: July 12, 1983. locality: Grazed, heavy soil, 25km SE of Chechaouen, 2km S of Bab Taza. elevation: 850m. remarks: Nodule sample obtained; large, pink. Wild. Seed.


PI 517100 donor id: GR 499. origin: Morocco. collected: July 18, 1983. locality: Volcanic origin soil, loam, shale oil project road, jeep area, 7km W of Hwy P 21, 10km S of Timhadite. elevation: 1600m. remarks: 800+mm zone. Wild. Seed.
PI 517088 to 517104-continued


PI 517104  donor id: GR 836.  origin: Morocco.  collected: August 09, 1983.  locality: Coastal region, heavy caliche soil, eroded, 1 km E of Tangiers on Road S 704.  elevation: 30m.  remarks: 800mm ppt/yr.  Wild.  Seed.

PI 517105 to 517107.  Trifolium glomeratum L.  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.


PI 517106  donor id: GR 497.  origin: Morocco.  collected: July 18, 1983.  locality: Opening in cedar forest, rocky loam, 1 km E of Mischliffen on Road P 3206.  elevation: 1900m.  remarks: 1100mm ppt/yr.  Wild.  Seed.


PI 517108 to 517112.  Trifolium isthmocarpum Brot.  FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States.  Received January 1986.
PI 517108 to 517112-continued

PI 517108  **donor id:** GR 7.  **origin:** Morocco.  **collected:** July 03, 1983.  **locality:** Opening in Quercus subra forest, sandy soil, 20km to Sale on Rabat to Meknes Road P 1.  **Wild. Seed.**

PI 517109  **donor id:** GR 274.  **origin:** Morocco.  **locality:** Heavily grazed drainage way near hwy, 15km SE of Tiflet on Road 209.  **elevation:** 300m.  **Wild. Seed.**

PI 517110  **donor id:** GR 358.  **origin:** Morocco.  **collected:** July 10, 1983.  **locality:** Along coast, rocky area, sandy soil, 20km S of Rabat, Temara-Plaga on Road 222.  **elevation:** 15m.  **Wild. Seed.**

PI 517111  **donor id:** GR 375.  **origin:** Morocco.  **collected:** July 11, 1983.  **locality:** Roadside, 13km NE of Souk-El-Arba-du-Rharb, near Tnine- Serafah on Road P 23.  **elevation:** 75m.  **Wild. Seed.**

PI 517112  **donor id:** GR 405.  **origin:** Morocco.  **collected:** July 12, 1983.  **locality:** Weed field on Forest Service land, N of Ouezzane at M.F. de Bellota.  **elevation:** 150m.  **remarks:** 800mm ppt/yr.  **Wild. Seed.**

PI 517113 to 517115. **Trifolium lappaceum L.  FABACEAE  Lappa clover**

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517113  **donor id:** GR 3.  **origin:** Morocco.  **collected:** July 03, 1983.  **locality:** Opening in Quercus subra forest, sandy to sandy loam soil, 20km to Sale on Rabat to Meknes Road P 1.  **Wild. Seed.**

PI 517114  **donor id:** GR 426A.  **origin:** Morocco.  **collected:** July 12 1983.  **locality:** 25km SE of Chechaouen, 2km S of Bab-Taza.  **elevation:** 850m.  **Wild. Seed.**

PI 517115  **donor id:** GR 844.  **origin:** Morocco.  **collected:** August 09, 1983.  **locality:** Eroded, heavy caliche soil, 31km E of Tangiers on Road S 704.  **remarks:** 800mm ppt/yr.  **Wild Seed.**
PI 517116 to 517119. Trifolium ochroleucon Hudson  FABACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517116  **donor id:** GR 511.  **origin:** Morocco.  **collected:** July 19, 1983.  **locality:** Under and near cedar trees, 7km S of Azrou on Road P 21.  **elevation:** 1800m.  **Wild. Seed.**

PI 517117  **donor id:** GR 532.  **origin:** Morocco.  **collected:** July 20, 1983.  **locality:** Cedar forest, 11km W of jct of Roads P 3390 and P 21, S of Azrou.  **elevation:** 1875m.  **Wild. Seed.**

PI 517118  **donor id:** GR 570.  **origin:** Morocco.  **collected:** July 22, 1983.  **locality:** Oak-woodland forest, 50km SE of Khenifra on Road P 33 near Tanout-ou-Fillali.  **elevation:** 1900m.  **Wild. Seed.**

PI 517119  **donor id:** GR 595.  **origin:** Morocco.  **collected:** July 24, 1983.  **locality:** 90km W of Midelt on Road P 33.  **elevation:** 2000m.  **Wild. Seed.**

PI 517120. Trifolium physodes Steven ex M. Bieb.  FABACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

**donor id:** GR 516.  **origin:** Morocco.  **collected:** July 19, 1983.  **locality:** Opening in cedar forest, 7km S of Azrou on Road P 21.  **elevation:** 1800m.  **remarks:** Large form with large seed heads.  **Wild. Seed.**

PI 517121 to 517124. Trifolium pratense L.  FABACEAE  Red clover

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517121  **donor id:** GR 315.  **origin:** Morocco.  **collected:** July 06, 1983.  **locality:** Wet spring site, 3km S of Oulmes on Road 2516.  **Wild. Seed.**

PI 517123  donor id: GR 492. origin: Morocco. collected: July 17, 1983. locality: In ferns on Forest Service planting, rocky acid loam, protected Quercus subra zone, 10km S of Bab Azhar on Road S 311. elevation: 1250m. remarks: 1000-1200mm ppt/yr. Wild. Seed.

PI 517124  donor id: GR 562. origin: Morocco. collected: July 22, 1983. locality: Deciduous forest, sandy loam soil, 2km S of Ain-Leuh, 32km S of Azrou on Road S 303. elevation: 1560m. Wild. Seed.

PI 517125 to 517130. Trifolium repens L. FABACEAE White clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517125  donor id: GR 370. origin: Morocco. collected: July 10, 1983. locality: Wet basin near coast, 7km E of Moulay-Bousselham, 89km N of Kenitra. elevation: 10m. Wild. Seed.


PI 517129  donor id: GR 486. origin: Morocco. collected: July 17, 1983. locality: Mountain spring, N side of road, 32km S of Taza on Road S 311, Bab-Boudir. elevation: 1425m. Wild. Seed.

PI 517130  donor id: GR 564. origin: Morocco. collected: July 22, 1983. locality: Deciduous forest area, 2km S of Ain-Leuh, 32km S of Azrou on Road S 303. elevation: 1560m. Wild. Seed.
PI 517131 to 517145. Trifolium resupinatum L. FABACEAE Persian clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517141 donor id: GR 270. origin: Portugal. other id: GTZ 6026. Seed.


PI 517131 to 517145—continued


PI 517146. Trifolium scabrum L. FABACEAE Rough clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

donor id: GR 5. origin: Morocco. collected: July 03, 1983. locality: Opening in Quercus subra forest, sandy to sandy loam soil, 20km S to Sale on Rabat to Meknes on Road P 1. Wild. Seed.

PI 517147 to 517150. Trifolium sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517151. Trifolium spumosum L. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

donor id: GR 272. origin: Morocco. other id: GTZ 6019. remarks: Donated by Mustapha Bounjemate, INRA. Seed.

PI 517152 to 517153. Trifolium stellatum L. FABACEAE Star clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517152

PI 517153

PI 517154 to 517179. Trifolium subterraneum L. FABACEAE Subterranean clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517154

PI 517155
donor id: GR 316. origin: Morocco. collected: July 06, 1983. locality: Dry roadside, 1 km S of Oulmes on Road 2516. elevation: 1225m. Wild. Seed.

PI 517155

PI 517156
PI 517154 to 517179-continued


PI 517164  donor id: GR 435.  origin: Morocco.  collected: July 13, 1983.  locality: Darel Abbass, near Loukous R. Lake, 1 km from Zitouna on Road 2641, W of Ouezzane.  elevation: 150m.  remarks: Plants protected from heavy grazing pressure by palmetto.  Wild.  Seed.

PI 517154 to 517179-continued


PI 517168 donor id: GR 450. origin: Morocco. collected: July 14, 1983. locality: Oak and pine shaded area, Forest Service Station, 14km W of Bab-Berred on Road P 39, 56km E of Chechaouen. elevation: 1400m. remarks: High elevation ecotype. Wild. Seed.

PI 517169 donor id: GR 489. origin: Morocco. collected: July 17, 1983. locality: Protected Quercus subra zone, Forest Service planting, rocky loam, acid, 10km S of Bab-Azhar on Road S 311. elevation: 1250m. remarks: 1000-1200mm ppt/yr. Wild. Seed.


PI 517173 donor id: GR 565. origin: Morocco. collected: July 22, 1983. locality: Opening in cedar forest, 10.8km S of Ain-Leuh, 41km S of Azrou on Road S 303. elevation: 1800m. Wild. Seed.


PI 517175 donor id: GR 806. origin: Morocco. collected: August 07, 1983. locality: Cork oak forest, rock loam soil, 9km S of Romman on Road P 22. elevation: 500m. remarks: Soil basic pH. 500mm ppt/yr. Small seed supply. Wild. Seed.
PI 517154 to 517179—continued


PI 517178  donor id: GR 817. origin: Morocco. collected: August 08, 1983. locality: Clay soil, cracking type, 5km S of Souk-El-Arba-du-Rharb on Road P 2, 78km S of Larache. elevation: 0m. Wild. Seed.

PI 517179  donor id: GR 822. origin: Morocco. collected: August 08, 1983. locality: Rocky, clay loam soil, 17km S of Tangiers off Road P 2 near airport. elevation: 25m. remarks: 800mm ppt/yr. Wild. Seed.

PI 517180 to 517184. Trifolium tomentosum L. FABACEAE Woolly clover

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517185. Trigonella anguina Del. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517186. Trigonella sp. FABACEAE

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517187. Triticum aestivum L. POACEAE Common wheat

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517188. Triticum durum Desf. POACEAE Durum wheat

Donated by: Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.

PI 517189. Vicia faba L. FABACEAE  Broadbean

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517190. Vicia monantha Retz. FABACEAE  Bard vetch

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517191 to 517192. Vicia sp.  FABACEAE

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.


PI 517193. Zea mays L. POACEAE  Corn

**Donated by:** Rumbaugh, M.D., Forage and Range Research Lab., USDA-ARS, Utah State University, Logan, Utah, United States; and Graves, W., Cooperative Agricultural Extension, 5556 Overland Avenue, Building 4, San Diego, California, United States. Received January 1986.
PI 517193-continued

**donor id:** GR 657. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Near Ouarzazate. **remarks:** Donated by Abdelazziz Maghroui Service de L'Elevage (Livestock Service). Local open-pollinated type. Cultivated. Seed.

PI 517194. *Triticum aestivum* L. POACEAE Common wheat

**Donated by:** Taylor, G.A., Department of Plant and Soil Science, Montana State University, Bozeman, Montana, United States. Received March 1988.

**origin:** United States. **cultivar:** TIBER. **pedigree:** Selected from Redwin. **remarks:** Hard, red type. Chaff brown. Awned. Straw stiff. Lodging and shattering very resistant. Winter hardiness good. Yield good, 52 Bua long term average. Acceptable milling and baking qualities. Susceptible to sawfly, dwarf smut (TCK) and stem rust. **disease resistance:** Leaf spot complex. Moderate to stripe rust. Winter Annual. Cultivar. Seed.

PI 517195 to 517196. *Arrhenatherum elatius* Met. & W. Koch POACEAE Tall oatgrass

**Donated by:** FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517195 **donor id:** ILCA 7180. **origin:** UNKNOWN. **remarks:** Obtained from France. Wild. Seed.

PI 517196 **donor id:** ILCA 10666. **origin:** Germany, Federal Rep of. **origin institute:** Saaten Darmstadt, L.C. Nungesser KG, Postf. 110846, D-6100 Darmstadt. **cultivar:** AREL 41. **Perennial. Cultivar. Seed.**

PI 517197 to 517201. *Lotus corniculatus* L. FABACEAE Birdsfoot trefoil

**Donated by:** FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517197 **donor id:** ILCA 5796. **origin:** Ethiopia. **collected:** January 18, 1982. **collector:** J. Kahuranaanga, A. Ahmed. **locality:** Clay soil, ILCA HQ Compound, Shola, Addis Ababa, Menagesha, Shewa. **latitude:** 09 deg. 02 min. N. **longitude:** 38 deg. 47 min. E. **elevation:** 2380m. **remarks:** Plants herbaceous, erect. Annual rainfall 1256mm. Perennial. Wild. Seed.

PI 517198 **donor id:** ILCA 6758. **origin:** Morocco. **remarks:** Obtained from FAO. Wild. Seed.


PI 517202. Lotus pedunculatus Cav. FABACEAE Big trefoil

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517203. Lotus sp. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517204. Lupinus albus L. FABACEAE White lupine

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517205. Lupinus sp. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517206. Medicago littoralis Rohde ex Lois. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. 
Received April 08, 1987.

donor id: ILCA 6502. origin: Australia. origin institute: Kimberley Seeds Ltd., 51 King Edward Road, Osborne Park, 6017, Western Australia. cultivar: HARBINGER. Perennial. Cultivar. Seed.

PI 517207 to 517213. Medicago lupulina L. FABACEAE Black medic

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. 
Received April 08, 1987.


PI 517214 to 517220. Medicago polymorpha L. FABACEAE California burclover

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517221 to 517254. Medicago sativa L. FABACEAE Alfalfa

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517221 to 517254-continued


PI 517255. Medicago scutellata (L.) Miller FABACEAE Snail medic
Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517256 to 517257. Medicago truncatula Gaertner FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517256  donor id: ILCA 7274.  origin: Ethiopia.  received as: M. tribuloides. Wild. Seed.


PI 517258 to 517259. Phleum pratense L. POACEAE Timothy

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517258 to 517259-continued


PI 517260.  Trifolium abyssinicum D. Heller  FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.
Received April 08, 1987.


PI 517261.  Trifolium ambiguum M. Bieb.  FABACEAE  Kura clover

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.
Received April 08, 1987.


PI 517262 to 517294.  Trifolium baccarinii Chiov.  FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.
Received April 08, 1987.


|---|---|---|---|---|---|---|---|---|---|

316
PI 517262 to 517294—continued


PI 517262 to 517294-continued

PI 517290  

PI 517291  

PI 517292  

PI 517293  

PI 517294  

PI 517295 to 517329. Trifolium bilineatum Fresen. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517295  


321
PI 517323  
**donor id:** ILCA 10067.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Sandy soil, 529.7km from Addis Ababa towards Bedele via Nekemte, 9.6km next to Arjo, Dabo Hona, Arjo, Welega.  
**latitude:** 08 deg. 42 min. N.  
**longitude:** 36 deg. 27 min. E.  
**elevation:** 1940m.  
**remarks:** Plants herbaceous, 100cm tall. Annual rainfall 2000mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517324  
**donor id:** ILCA 10086.  
**origin:** Ethiopia.  
**locality:** Sandy loam, 299.5km from Adis Ababa towards Nekemte, 22km before Nekemte, Wayu Tuka, Nekemte, Welega.  
**latitude:** 09 deg. 03 min. N.  
**longitude:** 36 deg. 43 min. E.  
**elevation:** 1920m.  
**remarks:** Plants herbaceous, 35cm tall. Annual rainfall 1800mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517325  
**donor id:** ILCA 10104.  
**origin:** Ethiopia.  
Annual. Wild. Seed.

PI 517326  
**donor id:** ILCA 10116.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Loamy soil, left side of road, lineseed farm, 2.3km after Wayu, Aboy Chomen, Gudru, Welega.  
**latitude:** 09 deg. 15 min. N.  
**longitude:** 37 deg. 21 min. E.  
**elevation:** 2520m.  
**remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1500mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517327  
**donor id:** ILCA 10126.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Near small stream in teff and wheat field, clay loam, 178.2km from Addis Ababa towards Nekemete, 15.4km before Gedo, Chelya, Jibat & Mecha, Shewa.  
**latitude:** 08 deg. 58 min. N.  
**longitude:** 37 deg. 33 min. E.  
**elevation:** 2320m.  
**remarks:** Plants herbaceous, 60cm tall. Annual rainfall 1200mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517328  
**donor id:** ILCA 10128.  
**origin:** Ethiopia.  
Annual. Wild. Seed.

PI 517329  
**donor id:** ILCA 10138.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Sorghum field, left side of road, clay loam, 72.7km from Addis Ababa towards Ambo, 15.8km from Addis Alem, Menagesha, Shewa.  
**elevation:** 2240m.  
**remarks:** Plants herbaceous, 50cm tall. Annual rainfall 1500mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517330 to 517355. *Trifolium burchellianum* Ser. FABACEAE

**Donated by:** FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.  
Received April 08, 1987.


PI 517330 to 517355-continued


PI 517330 to 517355—continued

PI 517355  
**donor id:** ILCA 10248.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Loamy soil, 414.6km from Addis Ababa towards Moyale, 19.7km from Yirga Chefe. Fischa Genet, Gedio, Sidamo.  
**latitude:** 06 deg. 06 min. N.  
**longitude:** 38 deg. 16 min. E.  
**elevation:** 2570m.  
**remarks:** Plants herbaceous, 15cm tall, johnstonii type. Annual rainfall 1600mm. Soil pH 5.5. Perennial. Wild. Seed.

PI 517356 to 517385.  
**Trifolium cryptopodium** Steudel ex A. Rich.  
**FABACEAE**

**Donated by:** FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.  
**Received April 08, 1987.**

PI 517356  
**donor id:** ILCA 7613.  
**origin:** Ethiopia.  
Perennial.  
Wild. Seed.

PI 517357  
**donor id:** ILCA 7621.  
**origin:** Ethiopia.  
**collected:** January 14, 1983.  
**collector:** S. Mengistu, Y. Hassen, A. Ahmed.  
**locality:** Silty clay, Werejarso, Selale, Shewa.  
**latitude:** 09 deg. 58 min. N.  
**longitude:** 38 deg. 18 min. E.  
**elevation:** 2550m.  
**remarks:** Plants herbaceous, 10-14cm tall. Annual rainfall 1000mm. Soil pH 8.0.  
Perennial. Wild. Seed.

PI 517358  
**donor id:** ILCA 7663.  
**origin:** Ethiopia.  
**Perennial.**  
Wild. Seed.

PI 517359  
**donor id:** ILCA 7787.  
**origin:** Ethiopia.  
**collected:** January 26, 1983.  
**collector:** S. Mengistu, Y. Hassen, A. Ahmed.  
**locality:** Clay loam, Lay Gaynt, Gaynt, Gonder.  
**latitude:** 11 deg. 50 min. N.  
**longitude:** 38 deg. 10 min. E.  
**elevation:** 3020m.  
**remarks:** Plants herbaceous, 10cm tall. Annual rainfall 1300mm. Soil pH 5.5.  
Perennial. Wild. Seed.

PI 517360  
**donor id:** ILCA 7915.  
**origin:** Ethiopia.  
**collected:** February 03, 1983.  
**collector:** S. Mengistu, Y. Hassen, A. Ahmed.  
**locality:** Loamy soil.  
**latitude:** 09 deg. 51 min. N.  
**longitude:** 39 deg. 45 min. E.  
**elevation:** 2500m.  
**remarks:** Plants herbaceous, 10cm tall. Annual rainfall 2000mm. Soil pH 6.0.  
Perennial. Wild. Seed.

PI 517361  
**donor id:** ILCA 8019.  
**origin:** Ethiopia.  
**collected:** November 02, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay loam, Angolela & Tera, Tegulet & Bulga, Shewa.  
**latitude:** 09 deg. 34 min. N.  
**longitude:** 39 deg. 29 min. E.  
**elevation:** 2720m.  
**remarks:** Plants herbaceous, 15-20cm tall. Annual rainfall 1100mm. Soil pH 5.0.  
Perennial. Wild. Seed.
PI 517362 

**donor id:** ILCA 8030.  **origin:** Ethiopia.  **collected:** November 02, 1982.  **collector:** L. Akundabweni, S. Mengistu.  **locality:** Sandy loam, Ankober, Tegulet & Bulga, Shewa.  **latitude:** 09 deg. 40 min. N.  **longitude:** 39 deg. 42 min. E.  **elevation:** 3180m.  **remarks:** Plants herbaceous, 10cm tall. Annual rainfall 1100mm. Soil pH 8.0. Perennial. Wild. Seed.

PI 517363 

**donor id:** ILCA 8033.  **origin:** Ethiopia.  **Perennial. Wild. Seed.**

PI 517364 

**donor id:** ILCA 8050.  **origin:** Ethiopia.  **collected:** November 05, 1982.  **collector:** L. Akundabweni, S. Mengistu.  **locality:** Sandy loam, Baso & Werena, Tegulet & Bulga, Shewa.  **latitude:** 09 deg. 48 min. N.  **longitude:** 39 deg. 41 min. E.  **elevation:** 3050m.  **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 1500mm. Soil pH 7.0. Perennial. Wild. Seed.

PI 517365 

**donor id:** ILCA 8058.  **origin:** Ethiopia.  **collected:** November 05, 1982.  **collector:** L. Akundabweni, S. Mengistu.  **locality:** Sandy silt, Baso & Werena, Tegulet & Bulga, Shewa.  **latitude:** 09 deg. 41 min. N.  **longitude:** 39 deg. 37 min. E.  **elevation:** 2840m.  **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 1300mm. Soil pH 5.0. Perennial. Wild. Seed.

PI 517366 

**donor id:** ILCA 8061.  **origin:** Ethiopia.  **Perennial. Wild. Seed.**

PI 517367 

**donor id:** ILCA 8074.  **origin:** Ethiopia.  **collected:** November 07, 1982.  **collector:** L. Akundabweni, S. Mengistu.  **locality:** Clay, Moret & Jiru, Tegulet & Bulga, Shewa.  **latitude:** 9 deg. 54 min. N.  **longitude:** 39 deg. 18 min. E.  **elevation:** 2580m.  **remarks:** Plants herbaceous, 10-20cm tall. Annual rainfall 900mm. Perennial. Wild. Seed.

PI 517368 

**donor id:** ILCA 8200.  **origin:** Ethiopia.  **Perennial. Wild. Seed.**

PI 517369 

**donor id:** ILCA 8212.  **origin:** Ethiopia.  **collected:** November 16, 1982.  **collector:** L. Akundabweni, S. Mengistu.  **locality:** Sandy loam, Dinshu, Mendeyo, Welo.  **latitude:** 07 deg. 05 min. N.  **longitude:** 39 deg. 41 min. E.  **elevation:** 3250m.  **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Soil pH 4.5. Perennial. Wild. Seed.

PI 517370 

**donor id:** ILCA 8217.  **origin:** Ethiopia.  **Perennial. Wild. Seed.**
PI 517356 to 517385-continued

PI 517371  
**donor id:** ILCA 8221.  
**origin:** Ethiopia.  
**collected:** November 06, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Sandy silt, Moret & Jiru, Tegulet & Bulga, Shewa.  
**latitude:** 09 deg. 43 min. N.  
**longitude:** 39 deg. 14 min. E.  
**elevation:** 2620m.  
**remarks:** Plants herbaceous, 5-10cm tall. Annual rainfall 1000mm. Soil pH 5.0. Perennial. Wild. Seed.

PI 517372  
**donor id:** ILCA 8226.  
**origin:** Ethiopia.  
**Perennial. Wild. Seed.**

PI 517373  
**donor id:** ILCA 8235.  
**origin:** Ethiopia.  
**collected:** November 06, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay loam, Baso & Werena, Tegulet & Bulga.  
**latitude:** 09 deg. 39 min. N.  
**longitude:** 39 deg. 25 min. E.  
**elevation:** 2730m.  
**remarks:** Plants herbaceous 10-15cm tall. Annual rainfall 1100mm. Soil pH 5.5. Perennial. Wild. Seed.

PI 517374  
**donor id:** ILCA 8243.  
**origin:** Ethiopia.  
**collected:** November 02, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay, Bereh, Menagesha, Shewa.  
**latitude:** 09 deg. 01 min. N.  
**longitude:** 38 deg. 49 min. E.  
**elevation:** 2430m.  
**remarks:** Plants herbaceous, 10cm tall. Annual rainfall 1200mm. Soil pH 6.5. Perennial. Wild. Seed.

PI 517375  
**donor id:** ILCA 8622.  
**origin:** Ethiopia.  
**collected:** December 19, 1982.  
**collector:** S. Mengistu, Y. Hassen, A. Ahmed.  
**locality:** Clay, Goba, Bale.  
**latitude:** 07 deg. 07 min. N.  
**longitude:** 39 deg. 42 min. E.  
**elevation:** 3010m.  
**remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 950mm. Soil pH 5.5. Perennial. Wild. Seed.

PI 517376  
**donor id:** ILCA 8628.  
**origin:** Ethiopia.  
**Perennial. Wild. Seed.**

PI 517377  
**donor id:** ILCA 9705.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Clay loam, field, right side of road, 5km before Gola Tsion, Abv Berdara peasant village.  
**latitude:** 09 deg. 55 min. N.  
**longitude:** 38 deg. 20 min. E.  
**elevation:** 2560m.  
**remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 1000mm. Soil pH 5.5. Perennial. Wild. Seed.


PI 517356 to 517385—continued


PI 517386 to 517420. *Trifolium decorum* Chiov. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517386 to 517420-continued


PI 517386 to 517420-continued


PI 517386 to 517420—continued


PI 517386 to 517420-continued


PI 517421 to 517423. Trifolium fragiferum L. FABACEAE Strawberry clover

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517424 to 517425. Trifolium hybridum L. FABACEAE Alsike clover

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517426 to 517447. Trifolium mattiolianum Chiov. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517448 to 517451. Trifolium multinerve A. Rich. FABACEAE

**Donated by:** FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517448  
**donor id:** ILCA 8218. **origin:** Ethiopia. **collected:** November 06, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 39 min. **longitude:** 39 deg. 18 min. **elevation:** 2700m. **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 1100mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517449  
**donor id:** ILCA 8236. **origin:** Ethiopia. **collected:** November 06, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 39 min. **longitude:** 39 deg. 18 min. **elevation:** 2700m. **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 1100mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517450  
**donor id:** ILCA 9717. **origin:** Ethiopia. **collected:** November 06, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 39 min. **longitude:** 39 deg. 18 min. **elevation:** 2700m. **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 1100mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517451  
**donor id:** ILCA 9724. **origin:** Ethiopia. **collected:** November 06, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 39 min. **longitude:** 39 deg. 18 min. **elevation:** 2700m. **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 1100mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517452 to 517455. Trifolium pichisermollii J. B. Gillett FABACEAE

**Donated by:** FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517452  
**donor id:** ILCA 8012. **origin:** Ethiopia. **collected:** November 14, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Sandy loam, 91.4km from Addis Ababa towards Debre Markos, 2km next to Debre Tsigé, Debre Libanos, Debre Markos, Gojam. **latitude:** 09 deg. 39 min. **longitude:** 38 deg. 49 min. **elevation:** 2670m. **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 700mm. Soil pH 4.5. Annual. Wild. Seed.

PI 517453  
**donor id:** ILCA 8151. **origin:** Ethiopia. **collected:** November 14, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Sandy loam, 91.4km from Addis Ababa towards Debre Markos, 2km next to Debre Tsigé, Debre Libanos, Debre Markos, Gojam. **latitude:** 09 deg. 39 min. **longitude:** 38 deg. 49 min. **elevation:** 2670m. **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 700mm. Soil pH 4.5. Annual. Wild. Seed.

PI 517454  
**donor id:** ILCA 8227. **origin:** Ethiopia. **collected:** November 06, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 45 min. **longitude:** 39 deg. 11 min. **elevation:** 2620m. **remarks:** Plants herbaceous, 35cm tall. Annual rainfall 950mm. Soil 7.0. Annual. Wild. Seed.

PI 517456 to 517465. Trifolium polystachyum Fresen. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517456 to 517465—continued


PI 517466 to 517478. Trifolium pratense L.  FABACEAE  Red clover

Donated by:  FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517466 to 517478—continued


PI 517479 to 517501. Trifolium quartinianum A. Rich. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517502 to 517516. Trifolium repens L. FABACEAE White clover

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517502 to 517516-continued


PI 517517 to 517577.  Trifolium rueppellianum Fresen.  FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.  Received April 08, 1987.


PI 517517 to 517577-continued

PI 517529  
**donor id:** ILCA 8008.  
**origin:** Ethiopia.  
**collected:** November 02, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay loam, Kimbibt, Tegulet & Bulga, Shewa.  
**latitude:** 09 deg. 23 min. N.  
**longitude:** 39 deg. 20 min. E.  
**elevation:** 2880m.  
**remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 7.5. Annual. Wild. Seed.

PI 517530  
**donor id:** ILCA 8010.  
**origin:** Ethiopia.  
**Annual. Wild. Seed.**

PI 517531  
**donor id:** ILCA 8053.  
**origin:** Ethiopia.  
**Annual. Wild. Seed.**

PI 517532  
**donor id:** ILCA 8070.  
**origin:** Ethiopia.  
**collected:** November 07, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay, Moret & Jiru, Tegulet & Bulga, Shewa.  
**latitude:** 09 deg. 59 min. N.  
**longitude:** 39 deg. 14 min. E.  
**elevation:** 2580m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 900mm. Annual. Wild. Seed.

PI 517533  
**donor id:** ILCA 8082.  
**origin:** Ethiopia.  
**collected:** December 01, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay loam, Adis Alem, Menagesha, Shewa.  
**latitude:** 09 deg. 04 min. N.  
**longitude:** 38 deg. 29 min. E.  
**elevation:** 2390m.  
**remarks:** Plants herbaceous, 5-10cm tall. Annual rainfall 1500mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517534  
**donor id:** ILCA 8120.  
**origin:** Ethiopia.  
**collected:** November 12, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay, Tiyo, Chilalo, Arsi.  
**latitude:** 07 deg. 54 min. N.  
**longitude:** 39 deg. 72 min. E.  
**elevation:** 2440m.  
**remarks:** Plants herbaceous, 5-10cm tall. Annual rainfall 1200mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517535  
**donor id:** ILCA 8233.  
**origin:** Ethiopia.  
**collected:** November 06, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay loam, Baso & Werena, Tegulet & Bulga, Shewa.  
**latitude:** 09 deg. 39 min. N.  
**longitude:** 39 deg. 28 min. E.  
**elevation:** 2730m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Soil pH 5.5. Annual. Wild. Seed.
PI 517517 to 517577-continued


**PI 517517 to 517577—continued**

**PI 517551**
- **donor id:** ILCA 9369.
- **origin:** Ethiopia.
- **collector:** A. Ahmed, S. Wachafo.
- **locality:** Clay, Holleta, 40km W of Addis Ababa on road to Ambo, 1.5km E of main gate, 50m inside the fence, Shewa.
- **latitude:** 09 deg. 03 min. N.
- **longitude:** 38 deg. 30 min. E.
- **elevation:** 2400m.
- **remarks:** Plants herbaceous, 40cm tall. Annual rainfall 1200mm. Soil pH 5.3. Annual. Wild. Seed.

**PI 517552**
- **donor id:** ILCA 9690.
- **origin:** Ethiopia.
- **collected:** November 03, 1983.
- **collector:** S. Mengistu.
- **locality:** Clay loam, Amber farmers village, hilly area on left side of road, 278.2km from Addis Ababa towards Debre Markos, Awabel, Debre Markos, Gojam.
- **latitude:** 10 deg. 18 min. N.
- **longitude:** 37 deg. 56 min. E.
- **elevation:** 2360m.
- **remarks:** Plants herbaceous, 48cm tall. Annual rainfall 1200mm. Soil pH 5.0. Annual. Wild. Seed.

**PI 517553**
- **donor id:** ILCA 9694.
- **origin:** Ethiopia.
- **collected:** November 03, 1983.
- **collector:** S. Mengistu.
- **locality:** Loam, protected reforestation hillside, 1km from center of Lumaneon, 260km from Addis Ababa towards Debre Markos, Aneded, Debre Markos, Gojam.
- **latitude:** 10 deg. 15 min. N.
- **longitude:** 37 deg. 56 min. E.
- **elevation:** 2490m.
- **remarks:** Plants herbaceous, 25cm tall. Annual rainfall 1200mm. Annual. Wild. Seed.

**PI 517554**
- **donor id:** ILCA 9701.
- **origin:** Ethiopia.
- **collected:** November 03, 1983.
- **collector:** S. Mengistu.
- **locality:** Loam, Yetnora collective farm campus near grain store, 240.2km from Addis Ababa towards Debre Markos, 11km from Dejen, Denjen, Debre Markos, Gojam.
- **latitude:** 10 deg. 15 min. N.
- **longitude:** 38 deg. 06 min. E.
- **elevation:** 2400m.
- **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 7.5. Annual. Wild. Seed.

**PI 517555**
- **donor id:** ILCA 9708.
- **origin:** Ethiopia.
- **Remarks:** Annual. Wild.

**PI 517556**
- **donor id:** ILCA 9721.
- **origin:** Ethiopia.
- **collected:** November 04, 1983.
- **collector:** S. Mengistu.
- **locality:** Sand, Merto Abiya farmers association in front of grain store, 106.8km from Addis Ababa towards Debre Markos, 7.8km before Fincha, Girar Jarso, Selale, Shewa.
- **latitude:** 09 deg. 45 min. N.
- **longitude:** 38 deg. 47 min. E.
- **elevation:** 2880m.


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PI 517517 to 517577-continued


PI 517578 to 517598. Trifolium schimperi A. Rich. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517578 to 517598-continued


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PI 517599 to 517674. Trifolium semipilosum Fresen. FABACEAE Kenya clover

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.

PI 517600 *donor id*: ILCA 7532.  
*origin*: Ethiopia.  
*locality*: Clay loam, 60km N of Abernossa on main road to Shashamane, about 50m E of road, Shewa.  
*latitude*: 07 deg. 15 min. N.  
*longitude*: 38 deg. 39 min. E.  
*elevation*: 2000m.  

PI 517601 *donor id*: ILCA 7609.  
*origin*: Ethiopia.  
*annual*: Wild. Seed.

PI 517602 *donor id*: ILCA 7611.  
*origin*: Ethiopia.  
*collected*: January 14, 1983.  
*collector*: A. Ahmed, S. Mengistu, Y. Hassen.  
*locality*: Clay, Kuyu, Selale, Shewa.  
*latitude*: 09 deg. 53 min. N.  
*longitude*: 38 deg. 23 min. E.  
*elevation*: 2560m.  

PI 517603 *donor id*: ILCA 7617.  
*origin*: Ethiopia.  
*annual*: Wild. Seed.

PI 517604 *donor id*: ILCA 7622.  
*origin*: Ethiopia.  
*collected*: January 14, 1983.  
*collector*: S. Mengistu, Y. Hassen, A. Ahmed.  
*locality*: Silty clay, Werejarso, Selale, Shewa.  
*latitude*: 09 deg. 58 min. N.  
*longitude*: 38 deg. 18 min. E.  
*elevation*: 2550m.  

PI 517605 *donor id*: ILCA 7638.  
*origin*: Ethiopia.  
*annual*: Wild. Seed.

PI 517606 *donor id*: ILCA 7642.  
*origin*: Ethiopia.  
*collected*: January 16, 1983.  
*collector*: S. Mengistu, Y. Hassen, A. Ahmed.  
*locality*: Clay, Inarge, Bichena, Gojam.  
*latitude*: 10 deg. 32 min. N.  
*longitude*: 38 deg. 09 min. E.  
*elevation*: 2530m.  

PI 517607 *donor id*: ILCA 7665.  
*origin*: Ethiopia.  
*collected*: January 17, 1983.  
*collector*: S. Mengistu, Y. Hassen, A. Ahmed.  
*locality*: Clay, Debay Tilatgne, Bichena, Gojam.  
*latitude*: 10 deg. 30 min. N.  
*longitude*: 38 deg. 01 min. E.  
*elevation*: 2500m.  
PI 517608
donor id: ILCA 7669.  origin: Ethiopia.  collected:
latitude: 10 deg. 30 min. N.  longitude: 37 deg. 57 min. E.  

PI 517609

PI 517610
donor id: ILCA 7822.  origin: Ethiopia.  collected:
latitude: 11 deg. 45 min. N.  longitude: 39 deg. 37 min. E.  

PI 517611

PI 517612
donor id: ILCA 7865.  origin: Ethiopia.  collected:
latitude: 11 deg. 17 min. N.  longitude: 39 deg. 31 min. E.  
elevation: 2840m.  remarks: Plants herbaceous, small, 10cm tall. Annual rainfall 1100mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517613
donor id: ILCA 7886.  origin: Ethiopia.  collected:
latitude: 10 deg. 59 min. N.  longitude: 39 deg. 34 min. E.  
elevation: 2900m.  remarks: Plants herbaceous, 10cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517614

PI 517615
donor id: ILCA 8016.  origin: Ethiopia.  collected:
latitude: 09 deg. 27 min. N.  longitude: 39 deg. 23 min. E.  
elevation: 2830m.  remarks: Plants herbaceous, 5cm tall. Annual rainfall 1100mm. Soil pH 4.0. Annual. Wild. Seed.

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PI 517599 to 517674—continued

PI 517616

PI 517617

PI 517618

PI 517619

PI 517620

PI 517621

PI 517622


PI 517599 to 517674—continued


PI 517670  donor id: ILCA 10210. origin: Ethiopia. collector: S. Mengistu. locality: Sandy loam, 444km from Addis Ababa towards Ginir, 9km from Robe, Goba, Mendeyu, Bale. latitude: 07 deg. 05 min. N. longitude: 40 deg. 05 min. E. elevation: 2500m. remarks: Plants herbaceous, 8cm tall. Annual rainfall 950mm. Soil pH 5.5. Annual. Wild. Seed.


PI 517599 to 517674—continued


PI 517675 to 517700. Trifolium simense Fresen. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517675 to 517700-continued

PI 517682  

PI 517683  

PI 517684  

PI 517685  

PI 517686  

PI 517687  

PI 517688  


<table>
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<tr>
<th>PI 517675 to 517700-continued</th>
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**PI 517695**  
**donor id:** ILCA 10166.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Sandy loam, along small river, 17km from Assela forked left on road to Kechema, Tiyo, Chilalo, Arsi.  
**latitude:** 07 deg. 49 min. N.  
**longitude:** 39 deg. 08 min. E.  
**elevation:** 2610m.  
**remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 5.5. Perennial. Wild. Seed.

**PI 517696**  
**donor id:** ILCA 10172.  
**origin:** Ethiopia.  
**Perennial. Wild. Seed.**

**PI 517697**  
**donor id:** ILCA 10175.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Clay, foot of hill on left side of road, 4.4km next to Bekoji, Chilalo, Arsi.  
**latitude:** 07 deg. 30 min. N.  
**longitude:** 39 deg. 15 min. E.  
**elevation:** 2890m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Perennial. Wild. Seed.

**PI 517698**  
**donor id:** ILCA 10180.  
**origin:** Ethiopia.  
**Perennial. Wild. Seed.**

**PI 517699**  
**donor id:** ILCA 10191.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Clay loam, rolling upland on left side of road, 14.2km from Adaba Genale, Bale.  
**latitude:** 07 deg. 02 min. N.  
**longitude:** 39 deg. 31 min. E.  
**elevation:** 2660m.  
**remarks:** Plants herbaceous, 10cm tall. Annual rainfall 900mm. Perennial. Wild. Seed.

**PI 517700**  
**donor id:** ILCA 10208.  
**origin:** Ethiopia.  
**collector:** S. Mengistu.  
**locality:** Loam, Dinsho demostration site of Ministry of Agriculture, 22km before Bale Robe, Dinsho, Goba, Bale.  
**latitude:** 07 deg. 06 min. N.  
**longitude:** 39 deg. 47 min. E.  
**elevation:** 2720m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 950mm. Soil pH 4.5. Perennial. Wild. Seed.

**PI 517701. Trifolium abyssinicum D. Heller FABACEAE**

_Donated by:_ FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.  
_Received April 08, 1987._

**donor id:** ILCA 6211.  
**origin:** Ethiopia.  
**received as:** T. calocephalum.  
**Wild. Seed.**

**PI 517702 to 517764. Trifolium steudneri Schweinf. FABACEAE**

_Donated by:_ FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.  
_Received April 08, 1987._


PI 517708  
**donor id:** ILCA 7620.  
**origin:** Ethiopia.  
**collected:** January 14, 1983.  
**collector:** S. Mengistu, Y. Hassen, A. Ahmed.  
**collector id:** SM-5-254-A.  
**locality:** Clay, 177km from Addis Ababa towards Debre Markos, Chillalo area, right side of road approx. 200m from main road, Were Jarso, Selale, Shewa.  
**latitude:** 09 deg. 58 min. N.  
**longitude:** 38 deg. 18 min. E.  
**elevation:** 2550m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1000mm. Soil pH 8.0. Seed collected from several plants. Annual. Wild. Seed.

PI 517709  
**donor id:** ILCA 7628.  
**origin:** Ethiopia.  
**collected:** December 15, 1983.  
**collector:** A. Ahmed, S. Mengistu, Y. Hassen.  
**collector id:** SM-5-256-C.  
**locality:** Clay, 231km from Addis Ababa towards Debre Markos, 2.5km from Dejen near small village, Dejen, Debre Markos, Gojam.  
**latitude:** 10 deg. 11 min. N.  
**longitude:** 38 deg. 08 min. E.  
**elevation:** 2420m.  
**remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517710  
**donor id:** ILCA 7633.  
**origin:** Ethiopia.  
**collected:** January 15, 1983.  
**collector:** S. Mengistu, Y. Hassen, A. Ahmed.  
**collector id:** SM-5-257-B.  
**locality:** Clay, bottom land approx. 300m on right side of road, 239km from Addis Ababa towards Mota via Dejen, 1 km from junction of Addis Ababa-Debre Markos and Dejen-Mota roads, Dejen, Debre Markos, Gojam.  
**latitude:** 10 deg. 14 min. N.  
**longitude:** 38 deg. 08 min. E.  
**elevation:** 2500m.  
**remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Soil pH 5.5. Seed collected from several plants. Annual. Wild. Seed.

PI 517711  
**donor id:** ILCA 7637.  
**origin:** Ethiopia.  
**Annual.** Wild. Seed.

PI 517712  
**donor id:** ILCA 7645.  
**origin:** Ethiopia.  
**collected:** January 18, 1983.  
**collector:** S. Mengistu, Y. Hassen, A. Ahmed.  
**collector id:** SM-5-261-B.  
**locality:** Clay, cropland right side of road, 285.9 from Addis Ababa, towards Mota, 19km from Bichena, Inarge, Bichena, Gojam.  
**latitude:** 10 deg. 37 min. N.  
**longitude:** 38 deg. 10 min. E.  
**elevation:** 2520m.  
**remarks:** Plants herbaceous, small, 15cm tall, quite dense growth. Annual rainfall 1300mm. Soil pH 6.0. Seeds collected from several plants. Annual. Wild. Seed.


PI 517727  
**donor id:** ILCA 8087.  
**origin:** Ethiopia.  
**collected:** November 10, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay loam, Lume, Yerer & Kereyu, Shewa.  
**latitude:** 08 deg. 35 min. N.  
**longitude:** 39 deg. 07 min. E.  
**elevation:** 1780m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 800mm. Soil pH 8.0. Annual. Wild. Seed.

PI 517728  
**donor id:** ILCA 8319.  
**origin:** Ethiopia.  
**collected:** November 20, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay, Ada-A Berga, Menagesha, Shewa.  
**latitude:** 08 deg. 48 min. N.  
**longitude:** 38 deg. 54 min. E.  
**elevation:** 1870m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1000mm. Soil pH 8.5. Annual. Wild. Seed.

PI 517729  
**donor id:** ILCA 8329.  
**origin:** Ethiopia.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay, Dendi, Jibat & Mecha, Shewa.  
**latitude:** 09 deg. 01 min. N.  
**longitude:** 38 deg. 12 min. E.  
**elevation:** 2240m.  
**remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1300mm Soil pH 7.0. Annual. Wild. Seed.

PI 517730  
**donor id:** ILCA 8332.  
**origin:** Ethiopia.  
**collected:** December 01, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**collector id:** SM-3-107-B.  
**locality:** Clay, 91.2km from Addis Ababa towards Ambo, Ginch bridge, Dendi, Jibat & Mecha, Shewa.  
**latitude:** 09 deg. 01 min. N.  
**longitude:** 38 deg. 07 min. E.  
**elevation:** 2270m.  
**remarks:** Plants herbaceous, 50cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517731  
**donor id:** ILCA 8338.  
**origin:** Ethiopia.  
**collected:** December 01, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Clay loam, Anbo Akababi, Jibat & Mecha, Shewa.  
**latitude:** 08 deg. 58 min. N.  
**longitude:** 37 deg. 53 min. E.  
**elevation:** 2210m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm Soil pH 7.0. Annual. Wild. Seed.

PI 517732  
**donor id:** ILCA 8341.  
**origin:** Ethiopia.  
**Annual. Wild. Seed.

PI 517733  
**donor id:** ILCA 8357.  
**origin:** Ethiopia.  
**collected:** December 02, 1982.  
**collector:** L. Akundabweni, S. Mengistu.  
**locality:** Sandy loam, Cheliya, Jibat & Mecha, Shewa.  
**latitude:** 08 deg. 00 min. N.  
**longitude:** 37 deg. 42 min. E.  
**elevation:** 2370m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1300mm. Soil pH 7.5. Annual. Wild. Seed.


PI 517702 to 517764-continued


PI 517702 to 517764-continued


PI 517765 to 517896. Trifolium tembense Fresen. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517775

**donor id:** ILCA 6278.  **origin:** Ethiopia.  **collected:** October 20, 1981.  **collector:** J. Kahurananga, S. Wachefo.  
**other id:** 5692.  **source:** Orig. ILCA no.  **locality:** Clay loam, ILCA HQ, Shola, approx. 10m N of old barn site, Shewa.  
**latitude:** 09 deg. 02 min.  **longitude:** 38 deg. 45 min.  **elevation:** 2380m.  **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1100mm. Soil pH 5.0. Annual. Wild. Seed.

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PI 517776

**donor id:** ILCA 6279.  **origin:** Ethiopia.  **collected:** October 28, 1981.  **collector:** J. Kahurananga, S. Wachefo.  
**other id:** 5694.  **source:** Orig. ILCA no.  **locality:** Clay, ILCA HQ, Shola, approx. 50m NW of old barn site along path to farm house, Shewa.  
**latitude:** 09 deg. 02 min.  **longitude:** 39 deg. 45 min.  **elevation:** 2380m.  **remarks:** Plants 40cm tall. Annual rainfall 1100mm. Soil pH 5.5. Annual. Wild. Seed.

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PI 517777

**donor id:** ILCA 6305.  **origin:** Ethiopia. Annual. Wild. Seed.

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PI 517778

**donor id:** ILCA 6491.  **origin:** Ethiopia.  **collected:** November 03, 1981.  **collector:** J. Kahurananga, S. Wachefo.  
**other id:** 5744.  **source:** Orig. ILCA no.  **locality:** Clay, ILCA HQ, Shola, forage plots, Shewa.  
**latitude:** 09 deg. 02 min.  **longitude:** 38 deg. 45 min.  **elevation:** 2380m.  **remarks:** Plants herbaceous, 25cm tall. Annual rainfall 1100mm. Soil pH 5.0. Annual. Wild. Seed.

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PI 517779

**donor id:** ILCA 6801.  **origin:** Ethiopia. Annual. Wild. Seed.

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PI 517780

**donor id:** ILCA 7102.  **origin:** Ethiopia.  **collected:** November 06, 1981.  **collector:** J. Kahurananga, S. Wachefo.  
**other id:** 5695, 5774.  **source:** Orig. ILCA nos.  **locality:** Clay, ILCA HQ, Shola, 20m W of old barn site, Shewa.  
**latitude:** 09 deg. 02 min.  **longitude:** 38 deg. 45 min.  **elevation:** 2380m.  **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 1100mm. Soil pH 5.2. Annual. Wild. Seed.

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PI 517781

**donor id:** ILCA 7628.  **origin:** Ethiopia. Annual. Wild. Seed.

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PI 517765 to 517896-continued

PI 517788  
donor id: ILCA 7790.  
origin: Ethiopia.  
collected: January 26, 1983.  
collector: S. Mengistu, Y. Hassen, A. Ahmed.  
locality: Clay, Lay Gaynt, Gaynt, Gonder.  
latitude: 11 deg. 11 min. N.  
longitude: 38 deg. 14 min. E.  
elevation: 2980m.  

PI 517789  
donor id: ILCA 7792.  
origin: Ethiopia.  
collected: January 27, 1983.  
collector: S. Mengistu, Y. Hassen, A. Ahmed.  
locality: Clay loam, Wadla Dawnt, Wadla Delanta, Welo.  
latitude: 11 deg. 11 min. N.  
longitude: 38 deg. 14 min. E.  
elevation: 2900m.  

PI 517790  
donor id: ILCA 8001.  
origin: Ethiopia.  
collected: November 02, 1982.  
collector: L. Akundabweni, S. Mengistu.  
locality: Clay, Bereh, Menagesha, Shewa.  
latitude: 09 deg. 10 min. N.  
longitude: 39 deg. 04 min. E.  
elevation: 2560m.  

PI 517791  
donor id: ILCA 8003.  
origin: Ethiopia.  
collected: November 02, 1982.  
collector: L. Akundabweni, S. Mengistu.  
locality: Clay loam, Bereh, Menagesha, Shewa.  
latitude: 09 deg. 12 min. N.  
longitude: 39 deg. 09 min. E.  
elevation: 2610m.  

PI 517792  
donor id: ILCA 8004.  
origin: Ethiopia.  
collected: November 02, 1982.  
collector: L. Akundabweni, S. Mengistu.  
locality: Sandy loam, Kimbibit, Tegulet Bulga, Shewa.  
latitude: 09 deg. 16 min. N.  
longitude: 39 deg. 13 min. E.  
elevation: 2770m.  

PI 517793  
donor id: ILCA 8005.  
origin: Ethiopia.  
Annual.  
Wild.  
Seed.

PI 517794  
donor id: ILCA 8007.  
origin: Ethiopia.  
collected: November 02, 1982.  
collector: L. Akundabweni, S. Mengistu.  
locality: Clay loam, Kimbibit, Tegulet & Bulga, Shewa.  
latitude: 09 deg. 23 min. N.  
longitude: 39 deg. 20 min. E.  
elevation: 2880m.  


PI 517800

**donor id:** ILCA 8040.  **origin:** Ethiopia.  **collected:**
November 02, 1982.  **collector:** L. Akundabweni, S.
Mengistu.  **locality:** Loam, Moja & Wadera, Tegulet &
Bulga, Shewa.  **latitude:** 09 deg. 55 min. N.  **longitude:**
39 deg. 38 min. E.  **elevation:** 2840m.  **remarks:** Plants
herbaceous, 25-50cm. Annual rainfall 1000mm. Soil pH 8.0.
Annual.  Wild.  Seed.

PI 517804

**donor id:** ILCA 8042.  **origin:** Ethiopia.  **collected:**
November 04, 1982.  **collector:** L. Akundabweni, S.
Mengistu.  **locality:** Clay loam, about 75m left of road,
171.9km from ILCA towards Seladingay (Meskele Gedam),
Moga & Wodera, Tegulet & Bulga, Shewa.  **latitude:** 09 deg.
52 min. N.  **longitude:** 39 deg. 42 min. E.  **elevation:**
2950m.  **remarks:** Plants herbaceous, 5-10cm tall. Annual
rainfall 1100mm. Annual.  Wild.  Seed.

PI 517805

**donor id:** ILCA 8043.  **origin:** Ethiopia.  **Annual.  Wild.**
Seed.

PI 517806

**donor id:** ILCA 8049.  **origin:** Ethiopia.  **collected:**
November 05, 1982.  **collector:** L. Akundabweni, S.
Mengistu.  **locality:** Sandy loam, Baso & Werena, Tegulet &
Bulga, Shewa.  **latitude:** 09 deg. 48 min. N.  **longitude:**
39 deg. 41 min. E.  **elevation:** 3050m.  **remarks:** Plants
herbaceous, 15cm tall. Annual rainfall 1800mm. Soil pH

PI 517807

**donor id:** ILCA 8054.  **origin:** Ethiopia.  **Annual.  Wild.**
Seed.

PI 517808

**donor id:** ILCA 8059.  **origin:** Ethiopia.  **collected:**
November 05, 1982.  **collector:** L. Akundabweni, S.
Mengistu.  **locality:** Sandy silt, Baso & Werena, Tegulet &
Bulga, Shewa.  **latitude:** 09 deg. 41 min. N.  **longitude:**
39 deg. 37 min. E.  **elevation:** 2840m.  **remarks:** Plants
herbaceous, 20cm tall. Annual rainfall 1300mm. Soil pH

PI 517809

**donor id:** ILCA 8066.  **origin:** Ethiopia.  **Annual.  Wild.**
Seed.

PI 517810

**donor id:** ILCA 8067.  **origin:** Ethiopia.  **collected:**
November 07, 1982.  **collector:** L. Akundabweni, S.
Mengistu.  **locality:** Clay, Moret & Jiru, Tegulet & Bulga,
Shewa.  **latitude:** 09 deg. 59 min. N.  **longitude:** 39 deg.
14 min. E.  **elevation:** 2580m.  **remarks:** Plants
herbaceous, 25cm tall. Annual rainfall 900mm. Annual.
Wild.  Seed.


PI 517836

PI 517837


PI 517839

PI 517840


PI 517765 to 517896-continued

PI 517850  
**donor id:** ILCA 8501.  
**origin:** Ethiopia.  
**collector:** J. Kahurananga.  
**locality:** Clay.  
**latitude:** 09 deg. 03 min. N.  
**longitude:** 38 deg. 45 min. E.  
**elevation:** 2630m.  
**remarks:** Annual rainfall 1100mm. Soil pH 5.9. Annual.  
Wild.  
Seed.

PI 517851  
**donor id:** ILCA 8502.  
**origin:** Ethiopia.  
**collector:** J. Kahurananga, A. Ahmed.  
**locality:** Clay, beginning of Sululta valley, 12km N of Addis Ababa on road to Debre Markos, Shewa.  
**latitude:** 09 deg. 03 min. N.  
**longitude:** 38 deg. 45 min. E.  
**elevation:** 2630m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Soil pH 5.9. Annual.  
Wild.  
Seed.

PI 517852  
**donor id:** ILCA 8504.  
**origin:** Ethiopia.  
**collectors:** J. Kahurananga, A. Ahmed.  
**locality:** Clay, 14km S of Fiche from Komando just off road on left side towards Debre Markos, Shewa.  
**latitude:** 09 deg. 46 min. N.  
**longitude:** 38 deg. 44 min. E.  
**elevation:** 2730m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Soil pH 4.9. Annual.  
Wild.  
Seed.

PI 517853  
**donor id:** ILCA 8509.  
**origin:** Ethiopia.  
**collector:** J. Kahurananga, A. Ahmed.  
**locality:** Clay, 2km NE of junction to Fiche from Addis Ababa towards Debre Markos road, Girar Jarso, Selale, Shewa.  
**latitude:** 09 deg. 48 min. N.  
**longitude:** 38 deg. 42 min. E.  
**elevation:** 2880m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm.  
Annual.  
Wild.  
Seed.

PI 517854  
**donor id:** ILCA 8510.  
**origin:** Ethiopia.  
**collector:** J. Kahurananga, A. Ahmed.  
**locality:** Clay, Tomaus Abdi approx. 4km from Komando the junction town to Fiche on main Addis Ababa-Debre Markos road, Shewa.  
**latitude:** 09 deg. 04 min. N.  
**longitude:** 38 deg. 41 min. E.  
**elevation:** 3040m.  
**remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1300mm. Soil pH 4.8. Annual.  
Wild.  
Seed.

PI 517855  
**donor id:** ILCA 8514.  
**origin:** Ethiopia.  
**collector:** J. Kahurananga, A. Ahmed.  
**locality:** Clay, Alektam Abo, 12km N of Dejen on road to Mota, 20m E of road, Gojam.  
**latitude:** 10 deg. 30 min. N.  
**longitude:** 38 deg. 10 min. E.  
**elevation:** 2420m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 5.8. Annual.  
Wild.  
Seed.

PI 517856  
**donor id:** ILCA 8515.  
**origin:** Ethiopia.  
**collectors:** J. Kahurananga, A. Ahmed.  
**locality:** Clay, Alektam Abo, 12km N of Dejen on road to Mota, 20m E of road, Gojam.

PI 517857  
**donor id:** ILCA 8519.  
**origin:** Ethiopia.  
**collectors:** J. Kahurananga, A. Ahmed.  
**locality:** Clay, Alektam Abo, 12km N of Dejen on road to Mota, 20m E of road, Gojam.  
**latitude:** 10 deg. 30 min. N.  
**longitude:** 38 deg. 10 min. E.  
**elevation:** 2420m.  
**remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 5.8. Annual.  
Wild.  
Seed.


PI 517765 to 517896-continued


PI 517887  donor id: ILCA 10149.  origin: Ethiopia.  Seed.


PI 517897 to 517902. Vigna membranacea A. Rich. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517901 donor id: ILCA 10078. origin: Ethiopia. collector: S. Mengistu. locality: Loam, 412.9km from Addis Ababa towards Gimbi, 32.4km next to bridge, Gimbi, Gimbi, Welega. latitude: 09 deg. 07 min. N. longitude: 37 deg. 55 min. E. elevation: 1730m. remarks: Vine, 80cm. Annual rainfall 1900mm. Wild. Seed.

PI 517903 to 517904. Vigna oblongifolia A. Rich. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.
Received April 08, 1987.

PI 517904 donor id: ILCA 8725. origin: Ethiopia. collected:
December 28, 1982. collector: S. Mengistu, A. Ahmed, Y. Hassen. locality:
Sandy loam, Gofa, Gofa, Gamo Gofa. latitude: 06 deg. 19 min. N. longitude:
36 deg. 55 min. E. elevation: 1375m. remarks: Vine, 60cm. Annual rainfall
1500mm. Soil pH 7.0. Wild. Seed.

PI 517905 to 517909. Vigna radiata (L.) R. Wilczek FABACEAE Mungbean

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.
Received April 08, 1987.


PI 517910 to 517912. Vigna unguiculata (L.) Walp. FABACEAE Yard-long bean

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.
Received April 08, 1987.

PI 517913 to 517917. Zornia glochidiata Reichb. ex DC. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517918 to 517921. Zornia setosa Baker f. FABACEAE

Donated by: FLAG Unit, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia. Received April 08, 1987.


PI 517918 to 517921-continued


PI 517922 to 517926. Pisum sativum var. arvense (L.) Poiret FABACEAE Field pea


400


PI 517927 to 517938. Gossypium hirsutum L. MALVACEAE Cotton

Donated by: Shepherd, R.L., Crop Science Research Laboratory, USDA-ARS, P.O. Box 5367, Mississippi State, Mississippi, United States. remarks: Joint contribution of USDA-ARS and Mississippi Agr. and Forestry Exp. Sta., Mississippi State. Received March 15, 1988.


PI 517927 to 517938-continued

PI 517929  
**donor id:** M-075-RNR.  
**origin:** United States.  
**pedigree:** Deltapine 16/3*T-75 (race latifolium-origin Guatemala).  
**other id:** GP-335.  
**source:** Crop Sci. 28(5):0368.  
**group:** CSR-COTTON.  
**remarks:** Plants nonphotoperiodic. Lint percentage lower and 2.5% fiber span length shorter than Deltapine 16. Potentially valuable as a new source of root-knot nematode resistance.  
**nematode resistance:** Root-knot (Meloidogyne incognita). Breeding Material. Seed.

PI 517930  
**donor id:** M-078-RNR.  
**origin:** United States.  
**pedigree:** Deltapine 16/3*T-78 (race latifolium-origin Guatemala).  
**other id:** GP-336.  
**source:** Crop Sci. 28(5):0368.  
**group:** CSR-COTTON.  
**remarks:** Plants nonphotoperiodic. Lint percentage lower and 2.5% fiber span length shorter than Deltapine 16. Potentially valuable as a new source of root-knot nematode resistance.  
**nematode resistance:** Root-knot (Meloidogyne incognita). Breeding Material. Seed.

PI 517931  
**donor id:** M-019-RNR.  
**origin:** United States.  
**pedigree:** Deltapine 16/2*T-19 (race richmondii-origin Chiapas, Mexico).  
**other id:** GP-337.  
**source:** Crop Sci. 28(5):0368.  
**group:** CSR-COTTON.  
**remarks:** Plants nonphotoperiodic. Lint percentage lower and 2.5% fiber span length shorter than Deltapine 16. Potentially valuable as a new source of root-knot nematode resistance.  
**nematode resistance:** Root-knot (Meloidogyne incognita). Breeding Material. Seed.

PI 517932  
**donor id:** M-022-RNR.  
**origin:** United States.  
**pedigree:** Deltapine 16/2*T-22 (race latifolium-origin Chiapas, Mexico).  
**other id:** GP-338.  
**source:** Crop Sci. 28(5):0368.  
**group:** CSR-COTTON.  
**remarks:** Plants nonphotoperiodic. Lint percentage lower and 2.5% fiber span length shorter than Deltapine 16. Potentially valuable as a new source of root-knot nematode resistance.  
**nematode resistance:** Root-knot (Meloidogyne incognita). Breeding Material. Seed.

PI 517933  
**donor id:** M-025-RNR.  
**origin:** United States.  
**pedigree:** Deltapine 16/2*T-25 (race punctatum-origin Chiapas, Mexico).  
**other id:** GP-339.  
**source:** Crop Sci. 28(5):0368.  
**group:** CSR-COTTON.  
**remarks:** Plants nonphotoperiodic. Lint percentage lower and 2.5% fiber span length shorter than Deltapine 16. Potentially valuable as a new source of root-knot nematode resistance.  
**nematode resistance:** Root-knot (Meloidogyne incognita). Breeding Material. Seed.


PI 517939 to 517941. *Gossypium hirsutum* L. MALVACEAE Cotton

**Donated by:** Jenkins, J.N., Crop Science Research Laboratory, USDA-ARS, P.O. Box 5367, Mississippi State, Mississippi, United States. Received March 15, 1988.

PI 517939  
**donor id:** MHR-10.  
**origin:** United States.  
**pedigree:** MOHG/DES 24//MOHG.  
**other id:** GP-345.  
**source:** Crop Sci. 28(5):0869.  
**group:** CSR-COTTON.  
**remarks:** Potentially useful for developing cultivars with increased tolerance to tobacco budworm (TBW).  
**insect resistance:** Tolerant to tobacco budworm (TBW).  

PI 517940  
**donor id:** MHR-11.  
**origin:** United States.  
**pedigree:** MOHG/DES 24//MOHG.  
**other id:** GP-346.  
**source:** Crop Sci. 28(5):0869.  
**group:** CSR-COTTON.  
**remarks:** Potentially useful for developing cultivars with increased tolerance to tobacco budworm (TBW).  
**insect resistance:** Tolerant to tobacco budworm (TBW).  

PI 517941  
**donor id:** MHR-12.  
**origin:** United States.  
**pedigree:** MOHG/DES 24//MOHG.  
**other id:** GP-347.  
**source:** Crop Sci. 28(5):0869.  
**group:** CSR-COTTON.  
**remarks:** Potentially useful for developing cultivars with increased tolerance to tobacco budworm (TBW).  
**insect resistance:** Tolerant to tobacco budworm (TBW).  

PI 517942 to 517944. *Gossypium hirsutum* L. MALVACEAE Cotton

**Donated by:** Jenkins, J.N., Crop Science Research Laboratory, USDA-ARS, P.O. Box 5367, Mississippi State, Mississippi, United States. Received March 15, 1988.

PI 517942  
**donor id:** MHR-14.  
**origin:** United States.  
**pedigree:** TIMOK 811/Stoneville 213(ST 213).  
**other id:** GP-348.  
**source:** Crop Sci. 28(5):0869.  
**group:** CSR-COTTON.  
**remarks:** Potentially useful for developing cultivars with increased tolerance to tobacco budworm (TBW) and the tarnished plant bug (TPB).  
**insect resistance:** Tolerant to tobacco budworm (TBW). Tolerant to tarnished plant bug (TPB).  

PI 517943  
**donor id:** MHR-15.  
**origin:** United States.  
**pedigree:** TIMOK 811/Stoneville 213(ST 213).  
**other id:** GP-349.  
**source:** Crop Sci. 28(5):0869.  
**group:** CSR-COTTON.  
**remarks:** Potentially useful for developing cultivars with increased tolerance to tobacco budworm (TBW) and the tarnished plant bug (TPB).  
**insect resistance:** Tolerant to tobacco budworm (TBW). Tolerant to tarnished plant bug (TPB).  
PI 517942 to 517944-continued


PI 517945 to 517946.  Gossypium hirsutum L.  MALVACEAE  Cotton

Donated by: Jenkins, J.N., Crop Science Research Laboratory, USDA-ARS, P.O. Box 5367, Mississippi State, Mississippi, United States.  Received March 15, 1988.


PI 517947.  Pennisetum purpureum Schumach.  POACEAE  Napiergrass

Donated by: Hanna, W.W. and Monson, W.G., USDA-ARS, Coastal Plain Experiment Station, Tifton, Georgia, United States.  remarks: Developed jointly by USDA-ARS and the University of Georgia Coastal Plain Experiment Station, Tifton.  Released as a cultivar by the Florida AES and USDA-ARS in February 1988.  Received March 15, 1988.
PI 517947-continued


PI 517948. Lolium multiflorum Lam. POACEAE Italian ryegrass

Donated by: Hanna, W.W., Monson, M.G., & Utley, P.R., USDA-ARS, Coastal Plain Exp. Sta., Animal Sci. Dept., Coastal Plain Exp. Sta, Tifton, Georgia, United States. remarks: Developed jointly by USDA-ARS and the University of Georgia Coastal Plain Experiment Station, Tifton. Received March 15, 1988.


PI 517949 to 517959. Helianthus annuus L. ASTERACEAE Sunflower

Donated by: Hoes, J.A. & Dedio, W., Agriculture Canada, Research Station, Morden, Manitoba ROG 1JO, Canada. Received March 15, 1988.

PI 517949


PI 517960 to 517967. Zea mays L. POACEAE Corn

**Donated by:** Johnson, M.W. & Ayers, J.E., Agronomy Dept., Penn State Univ., Tyson Building, Plant Pathology Dept., Penn State Univ., University Park, Pennsylvania, United States. **Remarks:** Cooperative research by Departments of Agronomy and Plant Pathology, Pennsylvania Agricultural Experiment Station. Grey Leaf Spot (GLS) ratings 0-5 with 0 most resistant. Received March 15, 1988.

**PI 517960**
**Donor ID:** PA Comp I (GLS) Cl (HY). **Origin:** United States. **Other ID:** GP-172. **Source:** Crop Sci. 28(5):0871. **Group:** CSR-MAIZE. **Remarks:** High yield sub-population of synthetic PA Comp I. Plants erect, high-yielding, maturity in the 800 AES range. GLS rating 1.7. Germplasm source for breeding for resistance to Cercospora zeae-maydis. **Disease Resistance:** Grey leaf spot. Breeding Material. Seed.

**PI 517961**
**Donor ID:** PA Comp I (GLS) Cl (LD). **Origin:** United States. **Other ID:** GP-173. **Source:** Crop Sci. 28(5):0871. **Group:** CSR-MAIZE. **Remarks:** Low disease sub-population of synthetic PA Comp I. Plants erect, maturity in the 800 AES range, GLS rating 1.1. Germplasm source for breeding for resistance to Cercospora zeae-maydis. **Disease Resistance:** Grey leaf spot. Breeding Material. Seed.

**PI 517962**
**Donor ID:** PA Comp II (GLS) Cl (HY). **Origin:** United States. **Other ID:** GP-174. **Source:** Crop Sci. 28(5):0871. **Group:** CSR-MAIZE. **Remarks:** High yield sub-population of synthetic PA Comp II. Plants erect, high-yielding, maturity in the 800 AES range, GLS rating 1.9. Germplasm source for breeding for resistance to Cercospora zeae-maydis. **Disease Resistance:** Grey leaf spot. Breeding Material. Seed.

**PI 517963**
**Donor ID:** PA Comp II (GLS) Cl (LD). **Origin:** United States. **Other ID:** GP-175. **Source:** Crop Sci. 28(5):0871. **Group:** CSR-MAIZE. **Remarks:** Low disease sub-population of synthetic PA Comp II. Plants erect, maturity in the 800 AES range, GLS rating 1.2. Germplasm source for breeding for resistance to Cercospora zeae-maydis. **Disease Resistance:** Grey leaf spot. Breeding Material. Seed.

**PI 517964**
**Donor ID:** PA Comp III (GLS) Cl (HY). **Origin:** United States. **Other ID:** GP-176. **Source:** Crop Sci. 28(5):0871. **Group:** CSR-MAIZE. **Remarks:** High yield sub-population of synthetic PA Comp III. Plants erect, maturity in the 800 AES range, GLS rating 1.8. Germplasm source for breeding for resistance to Cercospora zeae-maydis. **Disease Resistance:** Grey leaf spot. Breeding Material. Seed.


PI 517968 to 517971. Zea mays L. POACEAE Corn

Donated by: Johnson, M.W., Agronomy Dept., Penn State Univ., Penn Agricultural Experiment Station, Tyson Building, University Park, Pennsylvania, United States. Received March 15, 1988.

PI 517968 to 517971-continued


PI 517972 to 517974. Zea mays L.  POACEAE  Corn


PI 517972 to 517974-continued


PI 517975 to 517976.  Carya aquatica (Michaux f.) Nutt. ex Elliott  JUGLANDACEAE  Water hickory

Donated by: National Clonal Germplasm Repository, W.R. Poage Pecan Field Station, 701 Woodson Road, Brownwood, Texas, United States. Received December 21, 1987.


PI 517977.  Carya cathayensis Sarg.  JUGLANDACEAE  Chinese hickory

Donated by: National Clonal Germplasm Repository, W.R. Poage Pecan Field Station, 701 Woodson Road, Brownwood, Texas, United States. Received December 21, 1987.

PI 517978 to 517991. Carya hybrid JUGLANDACEAE Hican

Donated by: National Clonal Germplasm Repository, W.R. Poage Pecan Field Station, 701 Woodson Road, Brownwood, Texas, United States. Received December 21, 1987.


PI 517978 to 517991-continued

PI 517988  
**origin:** United States.  
**local name:** Thielenhaus 39-1.  
**remarks:** Received at clonal site in 1983. Perennial. Cutting.

PI 517989  
**origin:** United States.  
**local name:** Thielenhaus 39-11.  
**remarks:** Received at clonal site in 1983. Perennial. Cutting.

PI 517990  
**origin:** United States.  
**local name:** Thielenhaus 39-2-1.  
**remarks:** Received at clonal site in 1982. Perennial. Cutting.

PI 517991  
**origin:** United States.  
**local name:** Bill nut.  
**locality:** Harris Co., Houston.  

PI 517992 to 518145. Carya illinoinensis (Wangenh.) K. Koch  
**JUGLANDACEAE**  
Pecan

**Donated by:** National Clonal Germplasm Repository, W.R. Poage Pecan Field Station, 701 Woodson Road, Brownwood, Texas, United States. Received December 21, 1987.

PI 517992  
**origin:** United States.  
**cultivar:** A-93.  
**pedigree:** Schley/Moneymaker.  
**locality:** Philema, Lee County.  
**remarks:** Received at clonal site in 1983. Perennial. Cultivar. Cutting.

PI 517993  
**origin:** United States.  
**local name:** Aggie.  
**locality:** Belton, Bell County.  

PI 517994  
**origin:** United States.  
**local name:** Altman.  
**locality:** Burnet, Burnet County.  
PI 517995  

PI 517996  

PI 517997  

PI 517998  
**origin:** United States.  **local name:** Bennett, J. Bennett.  **locality:** Mansfield, Desota Parish.  **remarks:** Nuts large.  Susceptible to disease.  Seedling.  Donated by J. Bennett.  Received at clonal site in 1984.  Perennial.  Cultivated.  Cutting.

PI 517999  
**origin:** United States.  **local name:** Best's early.  **other id:** RGCT872-1,2.  **locality:** Eldred.  **remarks:** Received at clonal site in 1987.  Perennial.  Cultivated.  Cutting.

PI 518000  
**origin:** United States.  **local name:** Bixby.  **other id:** RGCT873-1.  **remarks:** Received at clonal site in 1987.  Perennial.  Wild.  Cutting.

PI 518001  


PI 518013  **origin:** United States.  **cultivar:** CHICKASAW.  **pedigree:** Brooks/Evers.  **other id:** Selection No. 44-4-101.  **remarks:** Protogynous. Branching profuse. Nut medium (66/lb), large number per cluster. Maturity early. Prolific. Kernel percentage high (55%). Good cracker. Quality good. Shell medium thickness. Scab susceptible but easily controlled at Albany, Georgia. Ideally suited for use in high density plantings or as temporary tree. Received at clonal site in 1945. Perennial. Cultivar. Cutting.


PI 518015  **origin:** United States.  **local name:** Colby, Arthur, Orrell.  **locality:** Clinton County.  **remarks:** Protogynous. Nuts medium (60/lb). Maturity medium. Shell thin. Excellent cracker. Donated by A.S. Colby and J.C. McDaniels. Received at clonal site in 1975. **disease resistance:** Leaf fungi. Perennial. Wild. Cutting.


PI 517992 to 518145-continued

PI 518019  
**origin:** United States.  
**local name:** Coy.  
**locality:** Columbus, Cherokee County.  

PI 518020  
**origin:** United States.  
**local name:** Curtis, Curtis #2.  
**locality:** Orange Height, Alachua County.  

PI 518021  
**origin:** United States.  
**cultivar:** DESIRABLE.  
**pedigree:** Success/Jewett.  
**locality:** Ocean Springs, Jackson County.  

PI 518022  
**origin:** United States.  
**local name:** Devore.  
**locality:** Wapello, Louisa County.  
**remarks:** Received at clonal site in 1975. Perennial. Wild. Cutting.

PI 518023  
**origin:** UNKNOWN.  
**local name:** Doby.  
**remarks:** Received at clonal site in 1975. Perennial. Wild. Cutting.

PI 518024  
**origin:** United States.  
**local name:** Dodd.  
**remarks:** Protogynous. Freeze damage 50% to stuart top graft in Oklahoma. Received at clonal site in 1983. Perennial. Wild. Cutting.

PI 518025  
**origin:** United States.  
**local name:** Dooley.  
**locality:** Okmulgee, Okmulgee County.  

PI 518026  
**origin:** United States.  
**local name:** Elliott, H. Elliot.  
**locality:** Milton, Santa Rosa County.  


PI 518043  
origin: United States.  
local name: Graking, Gra-King.  
locality: Hugo, Choctaw County.  

PI 518044  
origin: United States.  
cultivar: GRATEX.  
pedigree: Ideal/Success.  
locality: Arlington, Tarrant County.  

PI 518045  
origin: United States.  
local name: Grazona.  
locality: Mesa, Maricopa County.  

PI 518046  
origin: United States.  
local name: Greenriver.  
locality: Henderson, Henderson County.  

PI 518047  
origin: United States.  
local name: Gormely, Gormley.  
locality: Okemah, Okfuskee County.  

PI 518048  
origin: United States.  
local name: Donald Grotian, Don Grotjan, Grotjan.  
locality: Brunswick, Chariton County.  

PI 518049  
origin: United States.  
origin institute: Guidry Nursery, Louisiana.  
local name: Guidry.  
locality: St. Martinville, St. Martin Parish.  
PI 518050  
**origin:** United States.  
**local name:** Halbert.  
**locality:** Coleman, Coleman County.  
**remarks:** Growth slow.  
Protandrous. Nuts medium (60/lb), prolific, precocious.  
Maturity early. Kernel percentage high (60%). Shell thin.  
Excellent cracker. Freeze killed 1-3 year old wood in Oklahoma. Susceptible to severe scabbing. Donated by H.A. Halbert. Received at clonal site in 1980. Perennial.  
Wild. Cutting.

PI 518051  
**origin:** United States.  
**local name:** Harmon Bunts.  
**other id:** RGCT875-l.  
**remarks:** Received at clonal site in 1987.  

PI 518052  
**origin:** United States.  
**local name:** Harris Super.  
**locality:** Gunnison, Bolivar County.  

PI 518053  
**origin:** United States.  
**local name:** Hastings.  
**other id:** Pat. No. 1399.  
**locality:** Monticello, Jasper County.  

PI 518054  
**origin:** United States.  
**local name:** Hayes, Hays.  
**locality:** Deep Fork River, Lincoln County.  

PI 518055  
**origin:** United States.  
**local name:** Hirschi, Hershi, Hirschi Hardy, Steuck.  
**locality:** Rich Hill, Bates County.  

PI 518056  
**origin:** United States.  
**local name:** Humble.  
**other id:** Pat. No. 73.  
**locality:** Uvalde, Uvalde County.  
PI 517992 to 518145—continued

PI 518057  
**origin:** United States.  
**local name:** Ideal, Bradley (in New Mexico).  
**locality:** San Saba, San Saba County.  

PI 518058  
**origin:** United States.  
**local name:** Imperial.  
**locality:** San Antonio, Bexar County.  

PI 518059  
**origin:** United States.  
**origin institute:** Piggot Nursery Arkansas.  
**local name:** Jack Ballard.  
**locality:** Piggot, Clay County.  
**remarks:** Received at clonal site in 1984. Perennial. Wild. Cutting.

PI 518060  
**origin:** United States.  
**local name:** Jackson, Colfax 33, Thirtythree.  
**locality:** Ocean Springs, Jackson County.  

PI 518061  
**origin:** United States.  
**local name:** James Spence, Mrs. James Spence.  
**locality:** Brunswick, Chariton County.  
**remarks:** Received at clonal site in 1973. Perennial. Wild. Cutting.

PI 518062  
**origin:** United States.  
**local name:** Jennings, Jannings.  
**locality:** Jennings, Jefferson Davis Parish.  

PI 518063  
**origin:** United States.  
**origin institute:** Fruitland Nursery, Georgia.  
**local name:** Jerome.  
**locality:** Augusta, Richmond County.  
PI 518064  
origin: United States.  
local name: Jersey, Commercial.  
locality: San Saba, San Saba County.  

PI 518065  
origin: United States.  
cultivar: JOHN GARNER.  
pedigree: San Saba Imp./Onliwon.  
local name: John Garner, Garner.  
locality: San Saba, San Saba County.  

PI 518066  
origin: United States.  
local name: Johnson.  

PI 518067  
origin: United States.  
local name: Keilers.  
locality: Austin, Travis County.  

PI 518068  
origin: United States.  
local name: Kentucky Sdlg.  

PI 518069  
origin: United States.  
local name: Kernodle, Kernodel, Kernold.  
other id: Pat. No. 1744.  
locality: Camphill, Tallaposa County.  

PI 518070  
origin: United States.  
local name: Kibler, Kilber.  
locality: Coloma, Van Buren County.  

PI 518071  
origin: United States.  
local name: Kincaid, Kinkaid.  
locality: J.B. Donnelly farm, San Saba, San Saba County.  
PI 518072  
**origin:** United States.  
**cultivar:** KIOWA.  
**pedigree:** Mahan/Odom.  
**other id:** Selection No. 53-9-191.  
**Perennial.** Cultivar. Cutting.

PI 518073  
**origin:** United States.  
**local name:** Kuyken Dall.  
**locality:** Kuykendall Ranch, San Saba, San Saba County.  
**Perennial.** Wild. Cutting.

PI 518074  
**origin:** United States.  
**local name:** Louella Lewis, F.E. Lewis, Louella, Lou Ella Lewis.  
**locality:** Colfax, Grant Parish.  
**remarks:** Protogynous. Scab susceptibility moderate. Seedling. Donated by B.E. Lowery. Received at clonal site in 1984.  
**Perennial.** Cultivated. Cutting.

PI 518075  
**origin:** United States.  
**local name:** Mahan, Chestnut, Florida Giant, Giant Mahan, Master Piece, Mayhan, Meyhan, Mississippi Giant, Georgia Giant.  
**locality:** Kosciusko, Attala County.  
**Perennial.** Cultivated. Cutting.

PI 518076  
**origin:** United States.  
**local name:** Major.  
**locality:** Near Green River, Henderson, Henderson County.  
**disease resistance:** Scab in Kentucky.  
**Perennial.** Wild. Cutting.

PI 518077  
**origin:** United States.  
**local name:** Maramec.  
**locality:** Maramec, Pawnee County.  
**Perennial.** Cultivated. Cutting.
PI 518078  
origin: United States.  
origin institute: Guidry Nursery, Louisiana.  
local name: Mayo.  
locality: St. Martinville, St. Martin Parish.  
remarks: Susceptible to Bunch disease. Seedling. Received at clonal site in 1984.  

PI 518079  
origin: United States.  
local name: McCulley, McCully.  
locality: One-fourth mile from Peacn Field Station, Brownwood, Brown County.  

PI 518080  
origin: United States.  
local name: McKay #1.  
locality: Abilene, Taylor County.  
remarks: Kernel percentage high. Seedling. Donated by V. McKay. Received at clonal site in 1975.  

PI 518081  
origin: United States.  
local name: McNeil.  
remarks: Protogynous. Flowering early. Received at clonal site in 1982.  

PI 518082  
origin: United States.  
local name: Meyers.  
locality: Austin, Travis County.  
remarks: Shell flinty. Received at clonal site in 1934.  

PI 518083  
origin: United States.  
origin institute: Louisiana Agric. Exp. Sta., Louisiana.  
local name: Melrose.  
locality: Hanna, De Soto Parish.  
remarks: Protogynous. Nuts large (54/lb), oblong. No zinc chlorosis. Received at clonal site in 1984.  
disease resistance: Scab and Shuck.  

PI 518084  
origin: United States.  
origin institute: National Clonal Germplasm Repository, Brownwood, Texas.  
cultivar: MOHAWK.  
pedigree: Success/Mahan.  
other id: Selection No. 46-15-195.  
PI 518085  
**origin:** United States.  **local name:** Moneymaker, James Money Maker, Money Maker.  **other id:** RGCT877-1.  

PI 518086  

PI 518087  

PI 518088  

PI 518089  

PI 518090  
PI 517992 to 518145—continued


PI 518098  
**origin:** United States. **local name:** Owens, Chiles AAA.  
**locality:** Near Moon Lake, Cuba Island, Coahoma County.  

PI 518099  
**origin:** United States. **local name:** Palmer. **other id:** RGCT874-1.  
**remarks:** Received at clonal site in 1987. Perennial. Wild. Cutting.

PI 518100  
**origin:** United States. **local name:** Patrick. **locality:** Near Verdigris River, Rogers County.  

PI 518101  
**origin:** United States. **origin institute:** National Clonal Germplasm Repository, Brownwood, Texas. **cultivar:** PAWNEE. **pedigree:** Mohawk/Starking Hardy Giant. **other id:** Selection No. 63-16-125.  

PI 518102  
**origin:** United States. **local name:** Podsednik. **locality:** Arlington, Tarrant County.  

PI 518103  
**origin:** United States. **local name:** Pointe Coupee #2, Pcou 02, Pecou II. **locality:** Pointe Coupee Parish.  

PI 518104  
**origin:** United States. **local name:** Pensacola Cluster.  
**other id:** Pat. No. 2099.  
**locality:** Pensacola, Santa Rosa County.  


PI 517992 to 518145-continued

PI 518114  
**origin:** United States.  
**local name:** Roth.  
**locality:** Yoakum, De Witt County.  

PI 518115  
**origin:** United States.  
**local name:** Russell.  
**locality:** Ocean Springs, Jackson County.  

PI 518116  
**origin:** United States.  
**local name:** San Saba, Eggshell (Texas), Papershell (Texas), Paper Shell, Risien, Risien's Paper Shell, Royal.  
**locality:** San Saba, San Saba County.  

PI 518117  
**origin:** United States.  
**local name:** San Saba Improved, Improved.  
**locality:** San Saba, San Saba County.  

PI 518118  
**origin:** United States.  
**local name:** Schley/Harris.  
**remarks:** Nuts large (48/lb). Kernel percentage high (59%). Excellent cracker. Received at clonal site in 1984. **disease resistance:** Scab. Perennial. Wild. Cutting.

PI 518119  
**origin:** United States.  
**local name:** Seguin, Klein.  
**locality:** N. Starke farm, Seguin, Guadalupe County.  

PI 518120  
**origin:** United States.  
**local name:** Seminole.  
**locality:** Waukeenah, Jefferson County.  
PI 517992 to 518145—continued

PI 518121  
**origin:** United States.  
**origin institute:** National Clonal Germplasm Repository, Brownwood, Texas.  
**cultivar:** SHAWNEE.  
**pedigree:** Schley/Barton.  
**other id:** Selection No. 49-17-166.  
**disease resistance:** Scab and other fungi. Perennial. Cultivar. Cutting.

PI 518122  
**origin:** United States.  
**local name:** Sherard.  
**locality:** Northwestern Delta, Coahoma County.  

PI 518123  
**origin:** United States.  
**origin institute:** National Clonal Germplasm Repository, Brownwood, Texas.  
**cultivar:** SHOSHONI.  
**pedigree:** Odom/Evers.  
**local name:** Moon.  
**other id:** Selection No. 44-15-59.  

PI 518124  
**origin:** United States.  
**local name:** Sikes.  
**remarks:** Received at clonal site in 1953. Perennial. Wild. Cutting.

PI 518125  
**origin:** United States.  
**origin institute:** National Clonal Germplasm Repository, Brownwood, Texas.  
**cultivar:** SIOUX.  
**pedigree:** Schley/Carmichael.  
**other id:** Selection No. 43-4-6.  


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<th>Remarks</th>
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PI 517992 to 518145-continued


PI 518146 to 518148. Carya laciniosa (Michaux f.) Loudon JUGLANDACEAE Shellbark hickory

Donated by: National Clonal Germplasm Repository, W.R. Poage Pecan Field Station, 701 Woodson Road, Brownwood, Texas, United States. Received December 21, 1987.


PI 518149 to 518150. Carya ovata (Miller) K. Koch JUGLANDACEAE Shagbark hickory

Donated by: National Clonal Germplasm Repository, W.R. Poage Pecan Field Station, 701 Woodson Road, Brownwood, Texas, United States. Received December 21, 1987.


PI 518151 to 518154. Carya sp. JUGLANDACEAE

Donated by: National Clonal Germplasm Repository, W.R. Poage Pecan Field Station, 701 Woodson Road, Brownwood, Texas, United States. Received December 21, 1987.

PI 518151 to 518154-continued


PI 518153 origin: United States. local name: Jones Hybrid. remarks: Received at clonal site in 1975. Perennial. Cutting.


PI 518155. Carya texana Buckley JUGLANDACEAE

Donated by: National Clonal Germplasm Repository, W.R. Poage Pecan Field Station, 701 Woodson Road, Brownwood, Texas, United States. Received December 21, 1987.


PI 518156 to 518163. Beta vulgaris L. CHENOPODIACEAE Sugarbeet

Donated by: Chen, Y., Sugar Beet Research Institute, CAAS, Hulan, Heilongjiang Prov., Peoples Repub. of China. remarks: Received through D.L. Doney, USDA-ARS, North Dakota State University, Fargo, ND. Received February 08, 1988.


Donated by: Yang, Y., Jilin Prov. Sugar Beet & Sugar Ind. Res., Chang Chung, Jilin Province, Peoples Repub. of China. remarks: Received through D.L. Doney, USDA-ARS, North Dakota State University, Fargo, ND. Received February 08, 1988.
PI 518168 to 518170. Beta vulgaris L. CHENOPODIACEAE Sugarbeet

Donated by: Zheng, J.L., Hohehaote Sugar Beet Res. Inst., CAAC, Hohehaote, Inner Mongolia, Peoples Repub. of China. remarks: Received through D.L. Doney, USDA-ARS, North Dakota State University, Fargo, ND. Received February 08, 1988.


PI 518171 to 518242. Phaseolus vulgaris L. FABACEAE Garden bean


PI 518171 to 518242—continued


PI 518183 origin: France. cultivar: CHEVRIER D'ETAMPES. remarks: Green, dry type (grain vert). Cultivar. Seed.


PI 518187 origin: France. cultivar: DROMOIS. Cultivar. Seed.


PI 518207 origin: France. cultivar: GOURMANDON. Cultivar. Seed.


PI 518213 origin: France.  **cultivar:** LINGOT.  **remarks:** Dry type (grain).  Cultivar.  Seed.

PI 518214 origin: France.  **cultivar:** LYONNAIS A LONGUE COSSE.  **remarks:** Snap type (filet).  Cultivar.  Seed.

PI 518215 origin: France.  **cultivar:** MARCELIN.  **remarks:** Flat, snap type (filet plat).  Cultivar.  Seed.

PI 518216 origin: France.  **cultivar:** MERVEILLE DU MARCHE.  **remarks:** Green, snap type (mangetout vert).  Cultivar.  Seed.

PI 518217 origin: France.  **cultivar:** MICHELET A LONGUE COSSE VILMORIN.  **remarks:** Dry type (grain).  Cultivar.  Seed.

PI 518218 origin: France.  **cultivar:** NOIR DE L'HERMITAGE.  **remarks:** Snap type (mangetout).  Cultivar.  Seed.

PI 518219 origin: France.  **cultivar:** NOIR HATIF DE BELGIQUE.  **remarks:** Snap type (filet).  Cultivar.  Seed.

PI 518220 origin: France.  **cultivar:** NOIR HATIF DE CHATEAURENARD.  **remarks:** Snap type (filet).  Cultivar.  Seed.

PI 518221 origin: France.  **cultivar:** PETIT POTAGER.  **remarks:** Dry type (grain).  Cultivar.  Seed.

PI 518222 origin: France.  **cultivar:** PLEIN LE PANIER.  **remarks:** Snap type (mangetout).  Cultivar.  Seed.

PI 518223 origin: France.  **cultivar:** PRECOCE DE SAUMUR.  **remarks:** Flat, snap type (filet plat).  Cultivar.  Seed.

PI 518224 origin: France.  **cultivar:** PREDOME NAIN.  **remarks:** Dry type (grain).  Cultivar.  Seed.

PI 518225 origin: France.  **cultivar:** PRINCESSE DOUBLE DE HOLLANDE.  **remarks:** Snap type (mangetout).  Cultivar.  Seed.

PI 518226 origin: France.  **cultivar:** PRODIGE DE COURTRY.  **remarks:** Snap type (filet).  Cultivar.  Seed.

PI 518227 origin: France.  **cultivar:** ROI DE L'ETE.  **remarks:** Snap type (mangetout).  Cultivar.  Seed.

PI 518228 origin: France.  **cultivar:** SAINT-ANDRE SANS FIL.  **remarks:** Snap type (mangetout).  Cultivar.  Seed.

PI 518229 origin: France.  **cultivar:** SAXA.  **remarks:** Snap type (mangetout).  Cultivar.  Seed.
PI 518171 to 518242—continued


PI 518243 to 518246. Cajanus cajan (L.) Millsp. FABACEAE Pigeon pea

Donated by: Ochs, J., Eureka Farm, LaCrosse, Washington, United States. Received February 12, 1988.

PI 518243 to 518246-continued


PI 518247 to 518260. Cicer arietinum L. FABACEAE Chickpea

Donated by: Ochs, J., Eureka Farm, LaCrosse, Washington, United States. Received February 12, 1988.


PI 518261. Lens culinaris Medikus  FABACEAE  Lentil

Donated by: Ochs, J., Eureka Farm, LaCrosse, Washington, United States. Received February 12, 1988.

PI 518262 to 518263. Pisum sativum L. FABACEAE Garden pea

Donated by: Ochs, J., Eureka Farm, LaCrosse, Washington, United States. Received February 12, 1988.


PI 518264 to 518265. Vigna mungo (L.) Hepper FABACEAE Black gram

Donated by: Ochs, J., Eureka Farm, LaCrosse, Washington, United States. Received February 12, 1988.


PI 518266 to 518269. Vigna radiata (L.) R. Wilczek FABACEAE Mungbean

Donated by: Ochs, J., Eureka Farm, LaCrosse, Washington, United States. Received February 12, 1988.


PI 518269 to 518269-continued

PI 518269  
donor id: MAD04.  
origin: India.  
collected: February 17, 1986.  
collector: J. Ochs.  
collector id: MAD04.  
locality: Madras.  
Cultivated.  
Seed.

PI 518270 to 518273. Zea mays L.  
POACEAE  
Corn

Donated by: Gevers, H.O., Summer Grain Sub-Centre, University of Natal, P.O. Box 375, Pietermaritzburg, South Africa. Received May 09, 1986.

PI 518270  
donor id: MRS.  
origin: South Africa.  
pedigree: Local heterotic group M37W and U.S. heterotic group Reid (B73).  
remarks: Population combining elite local and Corn Belt germplasm. Plants variable for yield, ear height and length, tassel size, and resistance to lodging and disease.  
disease resistance: Northern corn leaf blight (gene HtN).  
Breeding Material.  
Seed.

PI 518271  
donor id: MLS.  
origin: South Africa.  
pedigree: Local heterotic group M37W and U.S. heterotic group Lancaster (Mo 17).  
remarks: Population combining elite local and Corn Belt germplasm. Plants variable for yield, ear height and length, tassel size, and resistance to lodging and disease.  
disease resistance: Northern corn leaf blight (gene HtN).  
Breeding Material.  
Seed.

PI 518272  
donor id: FRS.  
origin: South Africa.  
pedigree: Local heterotic group F2834T and U.S. heterotic group Reid (B73).  
remarks: Population combining elite local and Corn Belt germplasm. Plants variable for yield, ear height and length, tassel size, and resistance to lodging and disease.  
disease resistance: Northern corn leaf blight (gene HtN).  
Breeding Material.  
Seed.

PI 518273  
donor id: FLS.  
origin: South Africa.  
pedigree: Local heterotic group F2834T and U.S. heterotic group Lancaster (Mo 17).  
remarks: Population combining elite local and Corn Belt germplasm. Plants variable for yield, ear height and length, tassel size, and resistance to lodging and disease.  
disease resistance: Northern corn leaf blight (gene HtN).  
Breeding Material.  
Seed.

PI 518274 to 518275. Zea mays L.  
POACEAE  
Corn


PI 518276 to 518277. Zea mays L. POACEAE Corn

Donated by: Manwiller, A., USAID, Kenya Agricultural Research Institute, Agricultural Res. Dept., P.O. Box 30148, Nairobi, Kenya. remarks: Received through increase by CIMMYT, Mexico. Received November 19, 1987.


PI 518278 to 518280. Glycine soja Siebold & Zucc. FABACEAE Wild soybean

Donated by: Kiang, Y.T., Department of Plant Science, University of New Hampshire, Durham, New Hampshire, United States; and Peng, C.I., Institute of Botany, Academia Sinica, Taipei, Taiwan. Received February 16, 1988.
PI 518278 to 518280—continued


PI 518279 donor id: T-B. origin: Taiwan. collected: September 30, 1986. locality: Yolo River bottom, 1000m downstream from PI 518278, Chutung, Hsinchu. latitude: 24 deg. 44 min. N. longitude: 121 deg. 05 min. E. Wild. Seed.

PI 518280 donor id: T-C. origin: Taiwan. collected: September 30, 1986. locality: Yolo River bottom, 1000m downstream from PI 518279, Chutung, Hsinchu. latitude: 24 deg. 44 min. N. longitude: 121 deg. 05 min. E. Wild. Seed.

PI 518281 to 518282. Glycine soja Siebold & Zucc. FABACEAE Wild soybean

Donated by: Kiang, Y.T., Department of Plant Science, University of New Hampshire, Durham, New Hampshire, United States. Received February 16, 1988.

PI 518281 origin: Taiwan. cultivar: TAICHUNG 37. Wild. Seed.

PI 518282 origin: Taiwan. cultivar: TAICHUNG 38. Wild. Seed.

PI 518283. Glycine soja Siebold & Zucc. FABACEAE Wild soybean

Donated by: Yeh, M.O., Chung Hsing University, Taichung, Taiwan.

Remarks: Received through Y.T. Kiang, Dept. of Plant Science, Univ. of New Hampshire, Durham, New Hampshire. Received February 16, 1988.


PI 518284 to 518297. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Kiang, Y.T., Department of Plant Science, University of New Hampshire, Durham, New Hampshire, United States. Received February 16, 1988.


PI 518284 to 518297-continued


PI 518298 to 518440. Beta vulgaris subsp. maritima (L.) Arcang.
CHENOPODIACEAE Sugarbeet

Donated by: Doney, D.L. & Whitney, E.D., USDA-ARS, North Dakota State University, Fargo, North Dakota, United States. remarks: Received through Sugarbeet Exploration in the United Kingdom and Ireland for Wild Beta vulgaris subsp. maritima- 1987. Received February 8, 1988.


latitude: 50 deg. 56 min. N.  longitude: 0 deg. 54 min. E.  elevation: 3m.  remarks: Plants variable, more than 50 sampled. Wild. Seed.

latitude: 50 deg. 56 min. N.  longitude: 0 deg. 46 min. E.  elevation: 3-5m.  remarks: Plant highly variable (more than 100 sampled). Wild. Seed.

latitude: 50 deg. 52 min. N.  longitude: 0 deg. 36 min. E.  elevation: 5-10m.  remarks: Twenty plants sampled. Wild. Seed.

latitude: 50 deg. 50 min. N.  longitude: 0 deg. 32 min. E.  elevation: 3m.  remarks: Plants variable, more than 100 sampled. Wild. Seed.

latitude: 50 deg. 43 min. N.  longitude: 0 deg. 22 min. E.  elevation: 3m.  remarks: Plants variable, more than 100 sampled. Wild. Seed.

latitude: 50 deg. 37 min. N.  longitude: 0 deg. 05 min. E.  elevation: 3m.  remarks: Plants variable, more than 50 sampled. Wild. Seed.


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PI 518334  
**donor id:** WB 656.  
**origin:** United Kingdom.  
**collected:** September 24, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 656.  
**locality:** On side of cliff where rabbits had not grazed, Berry Head, Devon County.  
**latitude:** 50 deg. 24 min. N.  
**longitude:** 3 deg. 29 min. W.  
**elevation:** 40m.  
**remarks:** Plants variable, 50 sampled.  
**Wild. Seed.**

PI 518335  
**donor id:** WB 657.  
**origin:** United Kingdom.  
**collected:** September 24, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 657.  
**locality:** Coarse gravel (shingle) soil at south end of beach, Slapton Sands, Devon County.  
**latitude:** 50 deg. 16 min. N.  
**longitude:** 3 deg. 38 min. W.  
**elevation:** 3m.  
**remarks:** Plants variable, 40 sampled.  
**Wild. Seed.**

PI 518336  
**donor id:** WB 658.  
**origin:** United Kingdom.  
**collected:** September 24, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 658.  
**locality:** On beach in protected cove in shale cliffs, Bantham, Devon County.  
**latitude:** 50 deg. 16 min. N.  
**longitude:** 3 deg. 52 min. W.  
**elevation:** 5m.  
**remarks:** Plants variable, 20 sampled.  
**Wild. Seed.**

PI 518337  
**donor id:** WB 659.  
**origin:** United Kingdom.  
**collected:** September 24, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 659.  
**locality:** Coarse gravel, in rock at edge of beach, Wembury, Devon County.  
**latitude:** 50 deg. 18 min. N.  
**longitude:** 4 deg. 05 min. W.  
**elevation:** 3m.  
**remarks:** Plants variable, segregating erect and prostrate, 30 sampled.  
**Wild. Seed.**

PI 518338  
**donor id:** WB 660.  
**origin:** United Kingdom.  
**collected:** September 25, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 660.  
**locality:** Lower part of cliffs at end of beach, Seaton, Cornwall County.  
**latitude:** 50 deg. 22 min. N.  
**longitude:** 4 deg. 23 min. W.  
**elevation:** 5m.  
**remarks:** Plants variable, 50 sampled.  
**Wild. Seed.**

PI 518339  
**donor id:** WB 661.  
**origin:** United Kingdom.  
**collected:** September 25, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 661.  
**locality:** Silt soil between grassy park and cliffs, Looe, Cornwall County.  
**latitude:** 50 deg. 21 min. N.  
**longitude:** 4 deg. 27 min. W.  
**elevation:** 10m.  
**remarks:** Plants variable, 30 sampled.  
**Wild. Seed.**
PI 518298 to 518440-continued


PI 518298 to 518440-continued


PI 518358  
**donor id:** WB 680.  
**origin:** United Kingdom.  
**collected:** September 30, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 680.  
**locality:** Coarse gravel on beach just above tide, Swanbridge, South Glamorgan County.  
**latitude:** 51 deg. 24 min. N.  
**longitude:** 3 deg. 12 min. W.  
**elevation:** 3m.  
**remarks:** Plants variable, large, more than 50 sampled. Population large. Wild. Seed.

PI 518359  
**donor id:** WB 681.  
**origin:** United Kingdom.  
**collected:** September 30, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 681.  
**locality:** In cobbles among large rocks by Salthouse, 1.5km S of Port Eynon, Gower County.  
**latitude:** 51 deg. 32 min. N.  
**longitude:** 4 deg. 12 min. W.  
**elevation:** 3m.  
**remarks:** Plants variable, 25 sampled. Wild. Seed.

PI 518360  
**donor id:** WB 682.  
**origin:** United Kingdom.  
**collected:** September 30, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 682.  
**locality:** End of Beach, where cliffs start in boulders, Penally, Dyfed County.  
**latitude:** 51 deg. 39 min. N.  
**longitude:** 4 deg. 42 min. W.  
**elevation:** 3m.  
**remarks:** Plants highly variable, more than 50 sampled. Wild. Seed.

PI 518361  
**donor id:** WB 683.  
**origin:** United Kingdom.  
**collected:** October 1, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 683.  
**locality:** In protected area at base of cliffs, 2km SE of Bosherston, Dyfed County.  
**latitude:** 51 deg. 36 min. N.  
**longitude:** 4 deg. 55 min. W.  
**elevation:** 5m.  
**remarks:** Plants variable, 10 sampled. Wild. Seed.

PI 518362  
**donor id:** WB 684.  
**origin:** United Kingdom.  
**collected:** October 1, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 684.  
**locality:** End of beach in cliffs, 2.5km W of Castlemartin, Dyfed County.  
**latitude:** 51 deg. 39 min. N.  
**longitude:** 5 deg. 03 min. W.  
**elevation:** 5m.  
**remarks:** Plants variable, 15 sampled. Wild. Seed.

PI 518363  
**donor id:** WB 685.  
**origin:** United Kingdom.  
**collected:** October 1, 1987.  
**collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 685.  
**locality:** In cliffs at edge of beach, 1 km W of Angle, Dyfed County.  
**latitude:** 51 deg. 41 min. N.  
**longitude:** 5 deg. 06 min. W.  
**elevation:** 5m.  
**remarks:** Plants variable, 30 sampled. Wild. Seed.
PI 518298 to 518440—continued


collector id: WB 701. locality: Coarse gravel on north side of bridge along harbor and up the coast, 0.5km NE of Wexford, Wexford County. latitude: 52 deg. 20 min. N. longitude: 6 deg. 27 min. W. elevation: 5m. remarks: Plants variable, abundant, more than 100 sampled. Wild. Seed.

collector id: WB 702. locality: Coarse sand, 0.5km W. of Newtown, Wexford County. latitude: 52 deg. 14 min. N. longitude: 6 deg. 47 min. W. elevation: 5m. remarks: Plants variable, large, 40 sampled. Wild. Seed.


PI 518383  donor id: WB 705. origin: Ireland. collected: October 7, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 705. locality: In sand and gravel, 0.5km W of Bagmbum Head, Wexford County. latitude: 52 deg. 09 min. N. longitude: 6 deg. 50 min. W. elevation: 8m. remarks: Plants variable, abundant, one large non-bolter, more than 50 sampled. Wild. Seed.


collector id: WB 711. locality: Coarse gravel along base of sea wall above high tide in harbor, Dungraven, Waterford County. latitude: 52 deg. 05 min. N. longitude: 7 deg. 36 min. W. elevation: 5m. remarks: Plants variable, 30 sampled. Wild. Seed.

collector id: WB 712. locality: Coarse gravel on beach, Admore, Waterford County. latitude: 51 deg. 57 min. N. longitude: 7 deg. 43 min. W. elevation: 3m. Wild. Seed.


collector id: WB 714. locality: Stone sea wall on beach, Crosshaven, Cork County. latitude: 51 deg. 48 min. N. longitude: 8 deg. 15 min. W. elevation: 3m. remarks: Few plants, 10 sampled. Wild. Seed.

collector id: WB 715. locality: In gravel on beach, Old Head, Cork County. latitude: 51 deg. 38 min. N. longitude: 8 deg. 32 min. W. elevation: 3m. remarks: Few plants, variable, 10 sampled. Wild. Seed.


collector id: WB 717. locality: In gravel on beach, Broadstrand Bay, Cork County. latitude: 51 deg. 37 min. N. longitude: 8 deg. 41 min. W. elevation: 3m. remarks: Plants variable, population of two plants sampled. Wild. Seed.
PI 518298 to 518440-continued


collector id: WB 725. locality: On stone sea wall near power plant, 2km N of Tarbort, Kerry County. latitude: 52 deg. 34 min. N. longitude: 9 deg. 22 min. W. elevation: 3m. remarks: Thirty plants sampled. Wild. Seed.

collector id: WB 726. locality: Coarse gravel on beach, Ballymacrinam Bay, Clare County. latitude: 52 deg. 36 min. N. longitude: 9 deg. 26 min. W. elevation: 3m. remarks: Plants variable, 40 sampled. Wild. Seed.

collector id: WB 727. locality: Coarse gravel on beach, Carrigaholt, Clare County. latitude: 52 deg. 36 min. N. longitude: 9 deg. 41 min. W. elevation: 3m. remarks: Plants variable, 20 sampled. Wild. Seed.

collector id: WB 728. locality: Coarse gravel on beach, Moneen, Clare County. latitude: 52 deg. 35 min. N. longitude: 9 deg. 52 min. W. elevation: 3m. remarks: Small population, 20 plants sampled. Wild. Seed.

collector id: WB 729. locality: Coarse gravel on beach, Barna, Galway County. latitude: 53 deg. 15 min. N. longitude: 9 deg. 10 min. W. elevation: 3m. remarks: Small population, 8 plants sampled. Wild. Seed.

collector id: WB 730. locality: In cobbles on beach in boulders, Caher, Galaway County. latitude: 53 deg. 15 min. N. longitude: 9 deg. 22 min. W. elevation: 3m. remarks: Small population among boulders where cattle could not graze. Most plants 80% monogerm, 15 sampled. Wild. Seed.
PI 518298 to 518440-continued


  collector id: WB 737.  locality: Coarse gravel, 1 km SE of Kilkeel, Down County.  latitude: 54 deg. 02 min. N.  
  longitude: 6 deg. 00 min. W.  elevation: 3m.  remarks: Plants variable, abundant, segregating for habit and pigmentation, more than 50 sampled.  Wild.  Seed.  

  collector id: WB 738.  locality: Coarse gravel on beach, Blackrock, Louth County.  latitude: 53 deg. 57 min. N.  
  longitude: 6 deg. 22 min. W.  elevation: 3m.  remarks: Plants variable, more than 50 sampled.  Wild.  Seed.  

  collector id: WB 739.  locality: Coarse gravel in rocks at east end of beach, Annagasson, Louth County.  
  latitude: 53 deg. 52 min. N.  longitude: 6 deg. 19 min. W.  elevation: 3m.  remarks: Plants variable, more than 50 sampled.  Wild.  Seed.  

  collector id: WB 740.  locality: Coarse gravel on beach, Clogherhead, Louth County.  latitude: 53 deg. 47 min. N.  
  longitude: 6 deg. 14 min. W.  elevation: 3m.  remarks: Plants variable, more than 100 sampled.  Wild.  Seed.  

  collector id: WB 741.  locality: Coarse gravel on beach, Skerries, Dublin County.  latitude: 53 deg. 35 min. N.  
  longitude: 6 deg. 06 min. W.  elevation: 3m.  remarks: More than 100 plants sampled.  Wild.  Seed.  

  collector id: WB 742.  locality: Above high tide in rocks in harbor, Abbey, Lancashire County.  latitude: 53 deg. 
  53 min. N.  longitude: 2 deg. 52 min. W.  elevation: 3m.  remarks: Four plants, uniform, all sampled. NC7 did not receive seed.  Wild.  Seed.  

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PI 518298 to 518440-continued

PI 518421  
**donor id:** WB 743.  **origin:** United Kingdom.  **collected:** October 22, 1987.  **collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 743.  **locality:** In cobbles between road and cliffs around castle, 0.5km E of Scarborough, North Yorkshire County.  
**latitude:** 54 deg. 17 min. N.  
**longitude:** 0 deg. 22 min. W.  
**elevation:** 5-10m.  
**remarks:** Plants large, abundant, erect and variable, more than 50 sampled.  Wild.  Seed.

PI 518422  
**donor id:** WB 744.  **origin:** United Kingdom.  **collected:** October 23, 1987.  **collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 744.  **locality:** In sand dunes on beach, Skegness, Lincolnshire County.  
**latitude:** 53 deg. 08 min. N.  
**longitude:** 0 deg. 20 min. E.  
**elevation:** 3m.  
**remarks:** Plants few, uniform, six sampled.  Wild.  Seed.

PI 518423  
**donor id:** WB 745.  **origin:** United Kingdom.  **collected:** October 23, 1987.  **collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 745.  **locality:** Coarse gravel (shingle) on beach, Shepherd's Port, Norfolk County.  
**latitude:** 52 deg. 52 min. N.  
**longitude:** 0 deg. 29 min. E.  
**elevation:** 3m.  
**remarks:** Plants few, large, 10 sampled.  Wild.  Seed.

PI 518424  
**donor id:** WB 746.  **origin:** United Kingdom.  **collected:** October 24, 1987.  **collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 746.  **locality:** Coarse gravel over sea wall, 2km N of Cley-Next the Sea, Norfolk County.  
**latitude:** 52 deg. 58 min. N.  
**longitude:** 1 deg. 04 min. E.  
**elevation:** 3.5m.  
**remarks:** Plants variable, abundant, more than 50 sampled.  Wild.  Seed.

PI 518425  
**donor id:** WB 747.  **origin:** United Kingdom.  **collected:** October 24, 1987.  **collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 747.  **locality:** In coarse gravel, 1 km S of Kissingland, Suffolk County.  
**latitude:** 52 deg. 24 min. N.  
**longitude:** 1 deg. 44 min. E.  
**elevation:** 3.5m.  
**remarks:** Plants few, sparsely separated, erect, uniform, 10 sampled.  Wild.  Seed.

PI 518426  
**donor id:** WB 748.  **origin:** United Kingdom.  **collected:** October 24, 1987.  **collector:** D.L. Doney & E.D. Whitney.  
**collector id:** WB 748.  **locality:** In coarse gravel, 1 km S of Southwold, Suffolk County.  
**latitude:** 52 deg. 19 min. N.  
**longitude:** 1 deg. 41 min. E.  
**elevation:** 3.5m.  
**remarks:** Plants few, uniform, 4 sampled.  NC7 did not receive seed.  Wild.  Seed.


PI 518298 to 518440-continued


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PI 518298 to 518440-continued


PI 518441 to 518442.  Chenopodium quinoa Willd.  CHENOPODIACEAE  Quinoa


PI 518443.  Coronilla scorpioides (L.) Koch  FABACEAE


PI 518444. Cucumis melo L. CUCURBITACEAE Cantaloupe

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. Received February 04, 1988.


PI 518445 to 518446. Hedysarum coronarium L. FABACEAE French honeysuckle

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. Received February 04, 1988.


PI 518447. Lotus corniculatus L. FABACEAE Birdsfoot trefoil

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. Received February 04, 1988.


PI 518448. Scorpiurus muricatus L. FABACEAE

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. Received February 04, 1988.
PI 518448-continued


PI 518449. *Trifolium campestre* Schreber **FABACEAE** Large hop clover


**donor id**: 870527-17. **origin**: Spain. **collected**: May 27, 1987. **collector**: W.J. Kaiser. **collector id**: 870527-17. **locality**: Roadside near a chickpea field on road from Jerez de la Frontera to Trebujena, Cadiz Province. **elevation**: 35m. **remarks**: Plant small. Flowers yellow, conspicuous. **Wild. Seed.**

PI 518450. *Trifolium repens* L. **FABACEAE** White clover


PI 518451. *Trifolium scabrum* L. **FABACEAE** Rough clover


PI 518452. *Triticum monococcum* L. POACEAE Einkorn

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. Received February 04, 1988.

- **donor id:** 870603-10. **origin:** Spain. **collected:** June 03, 1987. **collector:** W.J. Kaiser. **collector id:** 870603-10. **locality:** Prado del Rey, Sierra de Cadiz, about 12km from Villa Martin, Cadiz Province. **remarks:** Collected from seed increase plots, Experiment Station, SIA, Cortijo Tomejil. Originally obtained by Manuel Rendon Velazquez, SIA, Serville. Wild. Seed.

PI 518453. *Vicia articulata* Hornem. FABACEAE Single-flowered vetch

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. Received February 04, 1988.

- **donor id:** 870608-07. **origin:** Spain. **local name:** Algarrobas. **collected:** June 08, 1987. **collector:** W.J. Kaiser. **collector id:** 870608-07. **locality:** Tarancon. **remarks:** Obtained from Gregorio Fernandez Bailon, Ext. Agent, Tarancon, Cuenca Province. **received as:** *V. monantha*. Wild. Seed.

PI 518454 to 518469. *Vicia ervilia* (L.) Willd. FABACEAE Bitter vetch

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. Received February 04, 1988.

- **PI 518454**
  - **donor id:** 870601-91. **origin:** Spain. **origin institute:** Servicio de Invest. Agrarias, Cordoba. **origin institute id:** No. 159. **collected:** June 01, 1987. **collector:** W.J. Kaiser. **collector id:** 870601-91. Wild. Seed.

- **PI 518455**
  - **donor id:** 870601-92. **origin:** Spain. **origin institute:** Servicio de Invest. Agrarias, Cordoba. **origin institute id:** No. 166. **collected:** June 01, 1987. **collector:** W.J. Kaiser. **collector id:** 870601-92. Wild. Seed.

- **PI 518456**
  - **donor id:** 870601-93. **origin:** Spain. **origin institute:** Servicio de Invest. Agrarias, Cordoba. **origin institute id:** No. 169. **collected:** June 01, 1987. **collector:** W.J. Kaiser. **collector id:** 870601-93. **locality:** Malaga. Wild. Seed.


PI 518470 to 518471. Vicia narbonensis L. FABACEAE Narbonne vetch


PI 518472. Zea mays L. POACEAE Corn


PI 518473 to 518480. Ipomoea batatas (L.) Lam. CONVOLVULACEAE Sweet potato


PI 518477 donor id: DLP 2922. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2922. locality: 0.2km E of Cordoba. latitude: 18 deg. 50 min. N. longitude: 97 deg. 02 min. W. elevation: 980m. Wild. Seed.


PI 518481. Ipomoea x leucantha Jacq. CONVOLVULACEAE


donor id: DLP 2931. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2931. locality: 0.5km N of Comalcalco-Paraiso, Comalcalco Province. latitude: 18 deg. 08 min. N. longitude: 93 deg. 02 min. W. elevation: 10m. Wild. Seed.

PI 518482. Ipomoea pedatisecta Martens & Galeotti CONVOLVULACEAE


PI 518483. Ipomoea sp. CONVOLVULACEAE

PI 518483-continued


PI 518484 to 518485. Ipomoea squamosa Choisy CONVOLVULACEAE


PI 518486 to 518491. Ipomoea tiliacea (Willd.) Choisy CONVOLVULACEAE


PI 518486 to 518491-continued


PI 518491 donor id: DLP 2945. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2945. locality: 0.1km S of Candelaria, El Carmen Province. latitude: 18 deg. 05 min. N. longitude: 90 deg. 58 min. W. elevation: 40m. Wild. Seed.

PI 518492 to 518495. Ipomoea trichocarpa Ell. CONVOLVULACEAE


PI 518496. Ipomoea wrightii A. Gray CONVOLVULACEAE

**Donated by:** Austin, D.F., Dept. Biological Services, Florida Atlantic University, Boca Raton, Florida, United States. Received October 27, 1987.

**donor id:** DLP 2933. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2933. **locality:** 2km E of Paraiso, Paraiso Province. **latitude:** 18 deg. 12 min. N. **longitude:** 93 deg. 05 min. W. **elevation:** 8m. Wild. Seed.

PI 518497. Thuja occidentalis L. CUPRESSACEAE Northern white cedar

**Donated by:** Humphrey, F.G., Roselake Plant Materials Center, USDA-SCS, 7472 Stoll Road, East Lansing, Michigan, United States. **remarks:** Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 27, 1988.

**donor id:** 9005060. **origin:** United States. **origin institute:** Wisconsin State University, Boscobel, Wisconsin. **other id:** 26-01841. **remarks:** Fast growing, superior accession. Used for field and farmstead windbreaks and for screen or border plantings in recreational and urban development. Adapted to its natural range in the Great Lakes States in soil types from wet or poorly drained to well drained sandy loams. Cultivated. Seed.

PI 518498. Elymus lanceolatus (Scribner & J. G. Smith) Gould POACEAE Thickspike wheatgrass

**Donated by:** Humphrey, F.G., Roselake Plant Materials Center, USDA-SCS, 7472 Stoll Road, East Lansing, Michigan, United States. **remarks:** Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 27, 1988.

**donor id:** 9004928. **origin:** United States. **collected:** 1978. **collector:** D. Carroll, E. Humphrey. **collector id:** Mich-1944. **other id:** 26-01944. **other id:** TO4928. **locality:** Base of juniper, 30m from Lake Huron shore, U.S. Hwy 23 Tourist Roadside Park, N of Oscoda. **remarks:** Bloom persistent, and conspicuous. Seeds large. Plants spread readily from rhizomes. Used for critical area stabilization on sandy soils along lake shores, river banks and sand dunes in the Gread Lakes and Great Plains regions. Adapted for range seeding. Seed increase from originally collected vegetative materials. **received as:** Agropyron dasystachyum. Cultivated. Seed.
PI 518499 to 518501. Calamovilfa longifolia (Hook.) Scribn. POACEAE Prairie sandreed

Donated by: Humphrey, E., Roselake Plant Materials Center, USDA-SCS, 7472 Stoll Road, East Lansing, Michigan, United States. remarks: Received through National Plant Materials Center, USDA-ARS, Beltsville, Maryland. Received February 12, 1988.

PI 518499 

PI 518500 

PI 518501 

PI 518502 to 518511. Rhus glabra L. ANACARDIACEAE Smooth sumac

Donated by: Humphrey, E., Roselake Plant Materials Center, USDA-SCS, 7472 Stoll Road, East Lansing, Michigan, United States. remarks: Received through National Plant Materials Center, USDA-ARS, Beltsville, Maryland. Received February 12, 1988.

PI 518502 

PI 518503 


PI 518511  
**donor id:** 9031839.  **origin:** United States.  **collected:** 1981.  **collector:** S. Linkenhoker.  **other id:** 26-02233.  
**locality:** Warren County, MLRA 130.  **remarks:** Growth uniform. Seed production abundant. Used for critical area stabilization primarily on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.

PI 518512. *Avena sativa* L. POACEAE Common oat  
**Donated by:** Marshall, H.G., USDA-ARS, Dept. of Agronomy, Penn State University, 318 B Tyson Building, University Park, Pennsylvania, United States. Received March 10, 1988.

**donor id:** PA 8499-380.  **origin:** United States.  **pedigree:** PA 7527-894(Complex Winter)/PA 7628-420(Ed 26/OTEE).  
**other id:** XV78G254.  **remarks:** Height medium-short. Maturity intermediate. Breeding Material. Seed.

PI 518513. *Avena nuda* L. POACEAE Naked oats  
**Donated by:** Marshall, H.G., USDA-ARS, Dept. of Agronomy, Penn State University, 318 B Tyson Building, University Park, Pennsylvania, United States. remarks: Cooperative release by the Penn State University and USDA-ARS. Received March 10, 1988.

**donor id:** PA 8290-6113.  **origin:** United States.  
**cultivar:** PENNUDA.  **pedigree:** PA 7733-2005(Nuprime/Noble)/OTEE.  

PI 518514 to 518549. *Sorghum bicolor* (L.) Moench POACEAE Sorghum  
**Donated by:** Li, S., Liaoning Academy of Agriculture Research, Shenyang, Liaoning, Peoples Republic of China. Received March 08, 1988.

PI 518514  
**donor id:** 5.  **origin:** China, Peoples Repub of.  
**cultivar:** ER LU HUANG KE (BEI PIAO). Cultivar. Seed.

PI 518515  
**donor id:** 10.  **origin:** China, Peoples Repub of.  
**cultivar:** BA YE QI (ZHAO MENG). Cultivar. Seed.

PI 518516  
**donor id:** 14.  **origin:** China, Peoples Repub of.  
**cultivar:** BA YE QI (AN SHANG). Cultivar. Seed.

PI 518517  
**donor id:** 16.  **origin:** China, Peoples Repub of.  
**cultivar:** BA KE CHA. Cultivar. Seed.

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PI 518514 to 518549-continued

PI 518518  donor id: 29.  origin: China, Peoples Repub of.

PI 518519  donor id: 57.  origin: China, Peoples Repub of.

PI 518520  donor id: 105.  origin: China, Peoples Repub of.

PI 518521  donor id: 106.  origin: China, Peoples Repub of.

PI 518522  donor id: 110.  origin: China, Peoples Repub of.

PI 518523  donor id: 123.  origin: China, Peoples Repub of.

PI 518524  donor id: 124.  origin: China, Peoples Repub of.
cultivar: BAI LAO YA ZUO.  Cultivar.  Seed.

PI 518525  donor id: 125.  origin: China, Peoples Repub of.

PI 518526  donor id: 132.  origin: China, Peoples Repub of.
cultivar: CHU CHU HONG YI HAO.  Cultivar.  Seed.

PI 518527  donor id: 141.  origin: China, Peoples Repub of.
cultivar: LAO MU ZHU QIAO JIAO (JIU TAI).  Cultivar.
Seed.

PI 518528  donor id: 143.  origin: China, Peoples Repub of.
cultivar: LAO MU ZHU QIAO JIAO (ZHAO MENG).  Cultivar.
Seed.

PI 518529  donor id: 158.  origin: China, Peoples Repub of.

PI 518530  donor id: 167.  origin: China, Peoples Repub of.

PI 518531  donor id: 176.  origin: China, Peoples Repub of.
cultivar: HONG KE HONG QIAO JIAO ZI (KA ZUO).  Cultivar.
Seed.

PI 518532  donor id: 206.  origin: China, Peoples Repub of.
cultivar: HU BO CUO (HUAI DE).  Cultivar.  Seed.

PI 518534 \(\text{donor id: } 248.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: HUANG KE XIAO BAI GAO LIANG (CHOU YANG).}\)
\(\text{Cultivar. Seed.}\)

PI 518535 \(\text{donor id: } 253.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: HUANG KE BAI NIAN QIAO JIAO (KA ZUO).}\)
\(\text{Cultivar. Seed.}\)

PI 518536 \(\text{donor id: } 254.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: HUANG KE ZAO GAO LIANG (XIN BIN). Cultivar. Seed.}\)

PI 518537 \(\text{donor id: } 275.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: NIAN GAO LIANG (YONG JI). Cultivar. Seed.}\)

PI 518538 \(\text{donor id: } 282.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: NIAN GAO LIANG (XIN MIN). Cultivar. Seed.}\)

PI 518539 \(\text{donor id: } 347.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: XIONG YUE 253. Cultivar. Seed.}\)

PI 518540 \(\text{donor id: } 557.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: BAI PING. Cultivar. Seed.}\)

PI 518541 \(\text{donor id: } 577.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: BAI GAO LIANG (LAI YANG). Cultivar. Seed.}\)

PI 518542 \(\text{donor id: } 593.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: BAI AI (LONG HUA). Cultivar. Seed.}\)

PI 518543 \(\text{donor id: } 600.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: MU ZHU GOU (HE ZE). Cultivar. Seed.}\)

PI 518544 \(\text{donor id: } 741.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: WU DA LANG (XUAN HUA). Cultivar. Seed.}\)

PI 518545 \(\text{donor id: } 3046.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: BA YE QI (FU XIN). Cultivar. Seed.}\)

PI 518546 \(\text{donor id: } 3113.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: XIAO BAI NIANG (JIN ZHOU). Cultivar. Seed.}\)

PI 518547 \(\text{donor id: } 3335.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: GUAN DONG QING (SUI ZHONG). Cultivar. Seed.}\)

PI 518548 \(\text{donor id: } 3467.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: HUANG KE (HEI SHAN). Cultivar. Seed.}\)

PI 518549 \(\text{donor id: } 5212.\) \(\text{origin: China, Peoples Repub of.}\)
\(\text{cultivar: DA LUO CHUI (HUI MIN). Cultivar. Seed.}\)
PI 518550. Hordeum vulgare L. POACEAE Barley

Donated by: Sammons, D.J., Dept. of Agronomy, University of Maryland, H.J. Patterson Hall, College Park, Maryland, United States. Received March 28, 1988.


PI 518551 to 518555. Triticum aestivum L. POACEAE Common wheat

Donated by: Sunderman, D.W., Plant, Soil & Ent. Sciences Department, University of Idaho, Moscow, Idaho, United States. Received March 02, 1988.


PI 518551 to 518555-continued


PI 518556 to 518566. Hordeum vulgare L.  POACEAE  Barley

Donated by: Choo, T., Research Station, Agriculture Canada, P.O. Box 1210, Charlottetown, Prince Edward Island, Canada. Received March 23, 1988.


PI 518567. Hordeum brevisubulatum (Trin.) Link  POACEAE

Donated by: Choo, T., Research Station, Agriculture Canada, P.O. Box 1210, Charlottetown, Prince Edward Island, Canada. Received March 23, 1988.


PI 518568 to 518590. Triticum aestivum L.  POACEAE  Common wheat

Donated by: Choo, T., Research Station, Agriculture Canada, P.O. Box 1210, Charlottetown, Prince Edward Island, Canada. Received March 23, 1988.


PI 518568 to 518590-continued

PI 518581  origin: China, Peoples Repub of.  
cultivar: WUTAIDONGMAI.  

PI 518582  origin: China, Peoples Repub of.  
cultivar: HONGSUIHONGMANG.  

PI 518583  origin: China, Peoples Repub of.  
cultivar: MAOXIAOMAI.  

PI 518584  origin: China, Peoples Repub of.  
cultivar: GOUYINGZHAO.  

PI 518585  origin: China, Peoples Repub of.  
cultivar: TUSUILAOMAI.  

PI 518586  origin: China, Peoples Repub of.  
cultivar: FENGKANG NO. 2.  

PI 518587  origin: China, Peoples Repub of.  
cultivar: FENGKANG NO. 8.  

PI 518588  origin: China, Peoples Repub of.  

PI 518589  origin: China, Peoples Repub of.  
cultivar: DONGXIE NO. 3.  

PI 518590  origin: China, Peoples Repub of.  
cultivar: DONGXIE NO. 4.  

PI 518591. Triticum aestivum L. POACEAE Common wheat

Donated by: Baenziger, P.S., Dept. of Agronomy, University of Nebraska, 300 Keim Hall, Lincoln, Nebraska, United States. Received March 16, 1988.

donor id: NE82656. origin: United States.  
cultivar: ARAPAHOE.  
pedigree: Brule/3/Parker*4/Agent//Beloterkovskaia 198/Lancer.  
other id: CV-743.  
group: CSR-WHEAT.  
disease resistance: Predominant races of stem rust. Moderate to leaf rust races.  
insect resistance: Great Plains race of Hessian fly.  
PI 518592. Solanum tuberosum L. SOLANACEAE Potato

Donated by: Centro De Coordinacion, Casilla 5671, La Paz Edif., Montevideo, Uruguay. Received June 22, 1982.


PI 518593 to 518605. Triticum aestivum L. POACEAE Common wheat

Donated by: Yue, D., Institute of Crop Germplasm Resources, Chinese Academy of Agricultural Sciences, 30 Bai Shi Qiao Road, Beijing, China, Peoples Repub of. Received March 17, 1988.

PI 518606 to 518612. Citrullus lanatus (Thunb.) Matsum. & Nakai
CUCURBITACEAE Watermelon

Donated by: VIR, 44 Herzen Street, Leningrad, Soviet Union.
remarks: Received through FAO, Rome Italy. Received February 20, 1985.

PI 518606 donor id: VIR 4619. origin: Soviet Union. cultivar:

PI 518607 donor id: VIR 3367. origin: Soviet Union. cultivar:
BOGAEVSKIJ MUR. Cultivar. Seed.

PI 518608 donor id: VIR 2890. origin: Soviet Union. cultivar:
KHAIT-KARA. Cultivar. Seed.

PI 518609 donor id: VIR 3543. origin: Soviet Union. cultivar:

PI 518610 donor id: VIR 3049. origin: Soviet Union. cultivar:
MOZAICHNYJ. Cultivar. Seed.

PI 518611 donor id: VIR 4670. origin: Soviet Union. cultivar:
TAVRIJSKIJ. Cultivar. Seed.

PI 518612 donor id: VIR 4179. origin: Soviet Union. cultivar:
VAHKSHSKIJ TEMNOK. Cultivar. Seed.

PI 518613 to 518628. Triticum aestivum L. POACEAE Common wheat

Donated by: Allen, R.E., USDA-ARS, Dept. of Agronomy and Soils,
Washington State University, 209 Johnson Hall, Pullman, Washington,
United States. remarks: Cooperative release by USDA-ARS and the
Washington Agricultural Research Center, Washington State
University. Received April 1, 1988.

PI 518613 donor id: WA 7630. origin: United States. pedigree:
Marfed 6*/3/Norin 10/Brevor 14//Marfed. other id:
GP-297. group: CSR-WHEAT. remarks: Soft, white isoline
for culm length. Genotype Rht 1 Rht 1 Rht 2 Rht 2. Culm
length 51cm. Similar to Marfed except for culm length.

PI 518614 donor id: WA 7631. origin: United States. pedigree:
Marfed 6*/3/Norin 10/Brevor 14//Marfed. other id:
GP-298. group: CSR-WHEAT. remarks: Soft, white isoline
for culm length. Genotype Rht 1 Rht 1 Rht 2 Rht 2. Culm
length 51cm. Similar to Marfed except for culm length.
PI 518613 to 518628-continued


PI 518622  
donor id: WA 7639.  origin: United States.  
other id: GP-306.  group: CSR-WHEAT.  
remarks: Soft, white isoline for culm length. Genotype rht 1 rht 1 Rht 2 Rht 2. Culm length 79cm. Similar to Marfed except for culm length.  

PI 518623  
donor id: WA 7640.  origin: United States.  
other id: GP-307.  group: CSR-WHEAT.  
remarks: Soft, white isoline for culm length. Genotype rht 1 rht 1 Rht 2 Rht 2. Culm length 81cm. Similar to Marfed except for culm length.  

PI 518624  
donor id: WA 7641.  origin: United States.  
other id: GP-308.  group: CSR-WHEAT.  
remarks: Soft, white isoline for culm length. Genotype rht 1 rht 1 Rht 2 Rht 2. Culm length 78cm. Similar to Marfed except for culm length.  

PI 518625  
donor id: WA 7642.  origin: United States.  
other id: GP-309.  group: CSR-WHEAT.  
remarks: Soft, white isoline for culm length. Genotype rht 1 rht 1 Rht 2 Rht 2. Culm length 104cm. Similar to Marfed except for culm length.  

PI 518626  
donor id: WA 7643.  origin: United States.  
other id: GP-310.  group: CSR-WHEAT.  
remarks: Soft, white isoline for culm length. Genotype rht 1 rht 1 rht 2 rht 2. Culm length 102cm. Similar to Marfed except for culm length.  

PI 518627  
donor id: WA 7644.  origin: United States.  
other id: GP-311.  group: CSR-WHEAT.  
remarks: Soft, white isoline for culm length. Genotype rht 1 rht 1 rht 2 rht 2. Culm length 102cm. Similar to Marfed except for culm length.  

PI 518628  
donor id: WA 7645.  origin: United States.  
other id: GP-312.  group: CSR-WHEAT.  
remarks: Soft, white isoline for culm length. Genotype rht 1 rht 1 rht 2 rht 2. Culm length 101cm. Similar to Marfed except for culm length.  
PI 518629 to 518630. Solanum brachistotrichum (Bitter) Rydb.  
SOLANACEAE

**Donated by:** Ross, R.W., Inter-Regional Potato Intro. Sta., USDA-ARS, Peninsula Experiment Station, Sturgeon Bay, Wisconsin, United States.  
**remarks:** Joint 1984 American-Canadian-Danish-Mexican potato collecting expedition. Received November 27, 1984.

**PI 518629**  
**donor id:** TRHRG 214.  
**origin:** Mexico.  
**collected:** September 26, 1984.  
**collector:** R.W. Ross, J. Hjerting, A. Rivera-Pena, T.R. Tarn.  
**collector id:** TRHRG 214.  
**other id:** Q25232.  
**locality:** East facing slope, soil dark brown, Hwy 70, 33km from Aguascalientes, 8.2km along track past Milpillas de Arriba towards Potrero.  
**latitude:** 21 deg. 57 min. N.  
**longitude:** 102 deg. 35 min. W.  
**elevation:** 2320m.  
**Wild. Tuber.**

**PI 518630**  
**donor id:** TRHRG 219.  
**origin:** Mexico.  
**collected:** September 26, 1984.  
**collector:** R.W. Ross, J. Hjerting, A. Rivera-Pena, T.R. Tarn.  
**collector id:** TRHRG 219.  
**other id:** Q25233.  
**locality:** Altiplano, soil rich, dark under Quercus, Hwy 70, 33km from Aguascalientes, 10.2km along track past Milpillas de Arriba towards Potrero los Lopez.  
**latitude:** 21 deg. 57 min. N.  
**longitude:** 102 deg. 36 min. W.  
**elevation:** 2460m.  
**Wild. Tuber.**

PI 518631 to 518633. Solanum cardiophyllum Lindley  
SOLANACEAE

**Donated by:** Ross, R.W., Inter-Regional Potato Intro. Sta., USDA-ARS, Peninsula Experiment Station, Sturgeon Bay, Wisconsin, United States.  
**remarks:** Joint 1984 American-Canadian-Danish-Mexican potato collecting expedition. Received November 27, 1984.

**PI 518631**  
**donor id:** TRHRG 227A.  
**origin:** Mexico.  
**collected:** September 27, 1984.  
**collector:** R.W. Ross, J. Hjerting, A. Rivera-Pena, T.R. Tarn.  
**collector id:** TRHRG 227A.  
**other id:** Q25235.  
**locality:** Along rock wall between track and fields, soil red, from Hwy 70, 12km NW of Jalpa, 0.5km beyond Tlachichila towards Sta. Gertrudis.  
**latitude:** 21 deg. 33 min. N.  
**longitude:** 102 deg. 46 min. W.  
**elevation:** 2260m.  
**Wild. Tuber.**

**PI 518632**  
**donor id:** TRHRG 227B.  
**origin:** Mexico.  
**collected:** September 27, 1984.  
**collector:** R.W. Ross, J. Hjerting, A. Rivera-Pena, T.R. Tarn.  
**collector id:** TRHRG 227B.  
**other id:** Q25236.  
**locality:** Along rock wall between track and fields, soil red, from Hwy 70, 12km NW of Jalpa, 0.5km beyond Tlachichila towards Sta. Gertrudis.  
**latitude:** 21 deg. 33 min. N.  
**longitude:** 102 deg. 46 min. W.  
**elevation:** 2260m.  
**Wild. Tuber.**
PI 518631 to 518633-continued

PI 518633  
donor id: TRHRG 234A.  
origin: Mexico.  
collecfed:  
collector: R.W. Ross, J. Hjerting,  
A. Rivera-Pena, T.R. Tarn.  
collector id: TRHRG 234A.  
other id: Q25237.  
locality: Quercus woodland, soil dark,  
from Hwy 54, 10km SW of Jalpa, 26.3km along track towards  
Tlaltenango.  
latitude: 21 deg. 39 min. N.  
longitude: 103 deg. 8 min. W.  
elevation: 2400m.  
Wild.  
Tuber.

PI 518634. Solanum nayaritense (Bitter) Rydb.  
Solanaceae

Donated by: Ross, R.W., Inter-Regional Potato Intro. Sta., USDA-ARS,  
Peninsula Experiment Station, Sturgeon Bay, Wisconsin, United  
States.  
remarks: Joint 1984 American-Canadian-Danish-Mexico potato  
collecting expedition.  
received November 27, 1984.

donor id: TRHRG 270B.  
origin: Mexico.  
collecfed:  
October 09, 1984.  
collector: R.W. Ross, J. Hjerting, A.  
Rivera-Pena, T.R. Tarn.  
collector id: TRHRG 270B.  
other id: Q25238.  
locality: In corn field on meseta, soil red,  
near Sta. Anita, approx. 1.5km NE of Sta. Teresa.  
latitude: 22 deg. 30 min. N.  
longitude: 104 deg. 46 min.  
elevation: 2180m.  
remarks: Rare weed mixed with  
composites.  
Wild.  
Tuber.

PI 518635 to 518642. Hordeum vulgare L.  
Poaceae  
Barley

Donated by: Carver, B.F., Department of Agronomy, Oklahoma State  
University, 368 Agriculture Hall North, Stillwater, Oklahoma, United  
States.  
remarks: Cooperative release of the Oklahoma Agricultural  
Experiment Station, Oklahoma State University and USDA-ARS.  
Received March 11, 1988.

PI 518635  
donor id: OK87851S.  
origin: United States.  
pedigree: 2*  
Rogers/Omugi.  
other id: GP-97.  
source: Crop Sci.  
28(6):1034.  
group: CSR-BARLEY.  
remarks: Greenbug  
susceptible near-isogenic line of PI 518636.  
Breeding  
Material.  
Seed.

PI 518636  
donor id: OK87851R.  
origin: United States.  
pedigree: 2*  
Rogers/Omugi.  
other id: GP-98.  
source: Crop Sci.  
28(6):1034.  
group: CSR-BARLEY.  
remarks: Greenbug  
resistant near-isogenic line of PI 518635.  
insect  
resistance: Biotypes C & E of greenbug (Schizaphis  
graminum).  
Breeding  
Material.  
Seed.

PI 518637  
donor id: OK87852S.  
origin: United States.  
pedigree: 2*  
Rogers/Omugi.  
other id: GP-99.  
source: Crop Sci.  
28(6):1034.  
group: CSR-BARLEY.  
remarks: Greenbug  
susceptible near-isogenic line of PI 518638.  
Breeding  
Material.  
Seed.


PI 518643. Beta vulgaris L. CHENOPODIACEAE Sugarbeet


PI 518644 to 518645. Beta vulgaris L. CHENOPODIACEAE Sugarbeet


PI 518646. Pennisetum glaucum (L.) R. Br. POACEAE Pearl millet

Donated by: Hanna, W.W., USDA-ARS, Coastal Plain Experiment Station, Tifton, Georgia, United States. remarks: Cooperative development by USDA-ARS and the University of Georgia Coastal Plain Experiment Station. Received April 13, 1988.


PI 518647. X Triticosecale sp. POACEAE Triticale

Donated by: Sapra, V.T., Dept. of Plant and Soil Science, Alabama A & M University, Normal, Alabama, United States. Received April 13, 1988.
PI 518647-continued


PI 518648. Triticum aestivum L. POACEAE Common wheat

Donated by: Depauw, R.M., Research Station, Agriculture Canada, Swift Current, Saskatchewan, Canada. Received April 13, 1988.


PI 518649. Festuca longifolia Thuill. POACEAE

Donated by: Pepin, G.W., Pickseed West, Inc., P.O. Box 888, Tangent, Oregon, United States. remarks: Cooperative efforts of Pickseed West, Inc. and the New Jersey Agricultural Experiment Station, Rutgers University. Received April 13, 1988.

PI 518650. Festuca rubra subsp. commutata Gaud. POACEAE Chewing Fescue

**Donated by:** Pepin, G.W., Pickseed West, Inc., P.O. Box 888, Tangent, Oregon, United States. **remarks:** Cooperative efforts of Pickseed West, Inc. and the New Jersey Agricultural Experiment Station, Rutgers University. Received April 13, 1988.

**origin:** United States. **cultivar:** VICTORY. **pedigree:** Synthetic selected from progenies of 178 clones. **other id:** CV-35. **source:** Crop Sci. 28(6):1020. **group:** CSR-FESCUE. **remarks:** Low growing turf-type. Turf attractive, dense, fine-textured with bright, dark green color. Good tolerance to close mowing, moderate shade, moderately acid soils, and moderately low soil fertility. Used for lawns, parks, play areas. **disease resistance:** Improved to powdery mildew (Erysiphe graminis). Netblotch (Drechslera dictyoides). Rust (Puccinia crandallii) and dollarspot. Cultivar. Seed.

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PI 518651 to 518654. Helianthus annuus L. ASTERACEAE Sunflower

**Donated by:** Dedio, W & Hoes, J.A., Agriculture Canada, Research Station, Box 3001, Morden, Manitoba, Canada. Received April 13, 1988.

**PI 518651** **donor id:** CM 593. **origin:** Canada. **pedigree:** Derived from Mennonite. **other id:** PL-53. **source:** Crop Sci. 28(6):1042. **group:** CSR-SUNFLOWER. **remarks:** Non-oilseed type, cms by backcross. Achenes pale black with narrow white stripes. Nutmeat percentage 60. Lodging resistance good. **disease resistance:** Rust (Puccinia helianthi). Breeding Material. Seed.

**PI 518652** **donor id:** CM 594. **origin:** Canada. **pedigree:** Derived from Armaveric. **other id:** PL-54. **source:** Crop Sci. 28(6):1042. **group:** CSR-SUNFLOWER. **remarks:** Plants early flowering, cms by backcross. **disease resistance:** Wilt (Verticillium dahliae). Breeding Material. Seed.

**PI 518653** **donor id:** CM 596. **origin:** Canada. **pedigree:** Ac1611/CM469*3//RHA297/CM497*3. **other id:** PL-56. **source:** Crop Sci. 28(6):1042. **group:** CSR-SUNFLOWER. **remarks:** Fertility restorer. Ray flowers orange. Achenes black, large, 42g/1000. Carries recessive gene controlling branching. **disease resistance:** Downy mildew, race 2 (Plasmopara halstedii). Breeding Material. Seed.
PI 518651 to 518654-continued


PI 518655. Gossypium hirsutum L. MALVACEAE Cotton

Donated by: Bourland, F.M., Dept. of Agronomy, University of Arkansas, Fayetteville, Arkansas, United States; and Bridge, R.R., Delta Branch, Mississippi Agr. & Forestry Exp. Station, Stoneville, Mississippi, United States. remarks: Germplasm developed by the Mississippi Agricultural and Forestry Experiment Station. Received April 13, 1988.


PI 518656. Medicago sativa L. FABACEAE Alfalfa


PI 518657. Sorghum bicolor (L.) Moench POACEAE Sorghum

Donated by: Duncan, R.R., Dept. of Agronomy, Georgia Experiment Station, Griffin, Georgia, United States; and Rosenow, D.T., Texas Agr. Exp. Sta., Route 3, Box 219, Lubbock, Texas, United States; and Frederiksen, R.A., Dept. of Plant Pathology & Microbiology, Texas A&M University, College Station, Texas, United States. remarks: Joint contribution from the Georgia and Texas Agricultural Experiment Stations. Received April 13, 1988.
PI 518657-continued


PI 518658. Deschampsia caespitosa (L.) Beauv. POACEAE Tufted hairgrass


PI 518659. Arctagrostis latifolia (R. Br.) Griseb. POACEAE Polargrass


origin: United States. cultivar: KENAI. other id: CV-114. source: Crop Sci. 28(6):1022. group: CSR-OTHER GRASSES. remarks: Plants medium to tall, 0.5m to 1.5m. Leaves wide, lax along erect stout stems. Spreads by means of short, thick rhizomes forming dense clumps. Inflorescences open and lax to erect and narrow. Open pollinated. Used for forage and revegetation from central interior to southern coast. Drought sensitive. Cultivar. Seed.
PI 518660. *Zea mays* L.  POACEAE  Corn

**Donated by:** Wicks III, Z.W., Plant Science Dept., South Dakota State University, Brookings, South Dakota, United States. Received April 13, 1988.

donor id: SD43. origin: United States. pedigree: Selection from inbred W117/inbred H96. other id: PL-110. source: Crop Sci. 28(6):1041. group: CSR-MAIZE.

PI 518661. *Helianthus* hybrid  ASTERACEAE

**Donated by:** Jan, C.C., USDA-ARS, Agronomy Dept., North Dakota State University, Fargo, North Dakota, United States; and Chandler, J.M., Dept. of Agron. & Range Science, University of California, Davis, California, United States. Received April 13, 1988.


PI 518662. *Lolium perenne* L.  POACEAE  Perennial ryegrass

**Donated by:** Robinson, M.F., Seed Research of Oregon, Inc., 644 SW 13th Street, Corvallis, Oregon, United States. Received April 13, 1988.

PI 518663. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Anand, S.C., Delta Center, University of Missouri, P.O. Box 160, Portageville, Missouri, United States; and Shannon, J.G., Asgrow Seed Company, Marion, Arkansas, United States. Received April 13, 1988.


PI 518664. Glycine max (L.) Merr. FABACEAE Soybean


PI 518665. Glycine max (L.) Merr. FABACEAE Soybean

**Donated by:** Hartwig, E.E., USDA-ARS, Delta Branch, Miss. Agric. & Forestry Exp. Station, P.O. Box 196, Stoneville, Mississippi, United States. **Remarks:** Joint contribution by USDA-ARS, the Delta Branch, Mississippi Agricultural and Forestry Experiment Station, the Florida Agricultural Experiment Station and Rio Farms, Inc. Received April 13, 1988.


PI 518666 to 518667. Glycine max (L.) Merr. FABACEAE Soybean

**Donated by:** Fehr, W.R., Dept. of Agronomy, Iowa State University, Ames, Iowa, United States. Received April 13, 1988.

PI 518666 **Origin:** United States. **Cultivar:** ELGIN 87. **Pedigree:** Elgin*5/Williams 82. **other id:** CV-217. **Source:** Crop Sci. 28(6):1025. **Group:** CSR-SOYBEAN. **Remarks:** Maturity group II, best adapted to 42-44 degrees N latitude. Flowers purple. Pubescence tawny. Pods brown at maturity. Seeds yellow, shiny with black hila. Susceptible to brown stem rot, bacterial tan spot, pod and stem blight, and soybean mosaic virus. **Disease resistance:** Phytophthora rot (Phytophthora megasperma f. sp. glycinea). Cultivar. Seed.

PI 518667 **Origin:** United States. **Cultivar:** HARPER 87. **Pedigree:** Harper*6/Williams 82. **other id:** CV-218. **Source:** Crop Sci. 28(6):1026. **Group:** CSR-SOYBEAN. **Remarks:** Maturity group III, best adapted to approx. 40-42 degrees N latitude. Flowers purple. Pubescence tawny. Pods brown at maturity. Seeds yellow, shiny with black hila. Susceptible to Fe-deficiency chlorosis on calcareous soil. Moderately susceptible to purple stain (Cercospora kikuchii), downy mildew (Peronospora manshurica) and bacterial tan spot. Susceptible to brown stem rot and soybean mosaic virus. **Disease resistance:** Phytophthora rot (Phytophthora megasperma f.sp. glycinea). Cultivar. Seed.
PI 518668. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Allen, F.L., Dept. of Plant and Soil Science, University of Tennessee, Knoxville, Tennessee, United States. Received April 13, 1988.


PI 518669 to 518673. Glycine max (L.) Merr. FABACEAE Soybean


PI 518674 to 518677. Glycine max (L.) Merr. FABACEAE Soybean


remarks: Cooperative investigations by USDA-ARS and the Illinois and Missouri Agricultural Experiment Stations. Received April 13, 1988.


PI 518674 to 518677-continued

PI 518676  
origin: United States.  
cultivar: CN210.  
other id: CV-227.  
source: Crop Sci. 28(6):1030.  
group: CSR-SOYBEAN.  

PI 518677  
origin: United States.  
cultivar: CN290.  
other id: CV-228.  
source: Crop Sci. 28(6):1030.  

PI 518678 to 518681. Cucurbita maxima Duch. CUCURBITACEAE Winter squash


PI 518678  
donor id: 30144.  
origin: United States.  
local name: Banana squash.  
collected: October 06, 1984.  
collector: M. Nee.  
collector id: 30144.  

PI 518679  
donor id: 30146.  
origin: United States.  
local name: Turban squash.  
collected: October 06, 1984.  
collector: M. Nee.  
collector id: 30146.  

PI 518680  
donor id: 34180.  
origin: Bolivia.  
local name: Zapallo.  
collector: M. Nee.  
collector id: 34180.  

PI 518682 to 518686. Cucurbita moschata (Duch.) Duch. ex Poir. CUCURBITACEAE Squash


PI 518687 to 518689. Cucurbita pepo L. CUCURBITACEAE


PI 518690 to 518691. Cyclanthera pedata (L.) Schrad. CUCURBITACEAE


PI 518692. Lagenaria siceraria (Mol.) Standl. CUCURBITACEAE Bottle gourd

PI 518692-continued

donor id: 31286.  origin: Bolivia.  local name: Poro.  
collected: August 04, 1985.  collector: M. Nee.  

PI 518693. Sicana odorifera (Vell.) Naud. CUCURBITACEAE Casabanana


PI 518694. Solanum aethiopicum L. SOLANACEAE


PI 518695. Solanum giganteum Jacq. SOLANACEAE


PI 518696. Solanum marginatum L. f. SOLANACEAE

PI 518696-continued

donor id: 16089.  origin: Netherlands.  origin institute: Hortus Botanicus, Univ. of Nijmegen, Nijmegen.
Seed.

PI 518697. Solanum nutans Ruiz Lopez & Pavon SOLANACEAE


locality: 10km SSE of Valle Grande, Dept. Santa Cruz.
latitude: 18 deg. 34 min. S.  longitude: 64 deg. 03 min. W.  elevation: 2200m.  Wild.  Seed.

PI 518698. Solanum robustum H. H. Wendl. SOLANACEAE


donor id: 14673.  origin: German Democratic Repub.  

PI 518699. Solanum sodomeum L. SOLANACEAE


PI 518700. Solanum urticans Dunal SOLANACEAE


PI 518701. UNIDENT—Cucurbitaceae sp. CUCURBITACEAE


PI 518702 to 518729. Glycine max (L.) Merr. FABACEAE Soybean


PI 518709  origin: China, Peoples Repub of.  
cultivar: JILIN NO. 18. 
locality: Gongzhuling, Jilin.  
Cultivar.  
Seed.

PI 518710  origin: China, Peoples Repub of.  
cultivar: JILIN NO. 20.  
locality: Gongzhuling, Jilin.  
Cultivar.  
Seed.

PI 518711  origin: China, Peoples Repub of.  
cultivar: JILIN NO. 21.  
locality: Gongzhuling, Jilin.  
Cultivar.  
Seed.

PI 518712  origin: China, Peoples Repub of.  
cultivar: KAIYU NO. 8. 
locality: Kaiyuan, Liaoning 0).  
Cultivar.  
Seed.

PI 518713  origin: China, Peoples Repub of.  
cultivar: LIAODOU NO. 3.  
locality: Shenyang, Liaoning.  
Cultivar.  
Seed.

PI 518714  origin: China, Peoples Repub of.  
cultivar: LIAONONG NO. 2.  
locality: Shenyang, Liaoning.  
Cultivar.  
Seed.

PI 518715  origin: China, Peoples Repub of.  
cultivar: TIEFENG 18. 
locality: Tieling, Liaoning.  
Cultivar.  
Seed.

PI 518716  origin: China, Peoples Repub of.  
cultivar: YOUBIAN 30.  
locality: Beijing.  
Cultivar.  
Seed.

PI 518717  origin: China, Peoples Repub of.  
cultivar: FENGSHOUHUANG.  
locality: Changwei, Shandong.  
Cultivar.  
Seed.

PI 518718  origin: China, Peoples Repub of.  
cultivar: LUDOU NO. 4. 
locality: Jinan, Shandong.  
Cultivar.  
Seed.

PI 518719  origin: China, Peoples Repub of.  
cultivar: LUDOU NO. 7. 
locality: Jinan, Shandong.  
Cultivar.  
Seed.

PI 518720  origin: China, Peoples Repub of.  
cultivar: YUEJIN NO. 5. 
locality: Jinan, Shandong.  
Cultivar.  
Seed.

PI 518721  origin: China, Peoples Repub of.  
cultivar: CHALUKOU NO. 1. 
locality: Nanjing, Jiangsu.  
Cultivar.  
Seed.

PI 518722  origin: China, Peoples Repub of.  
cultivar: NANNONG 493-1. 
locality: Nanjing, Jiangsu.  
Cultivar.  
Seed.

PI 518723  origin: China, Peoples Repub of.  
cultivar: SUXIE NO. 1.  
locality: Nanjing, Jiangsu.  
Cultivar.  
Seed.

PI 518724  origin: China, Peoples Repub of.  
cultivar: 1138-2. 
locality: Nanjing, Jiangsu.  
Cultivar.  
Seed.

PI 518725  origin: China, Peoples Repub of.  
cultivar: XUDOU NO. 2. 
locality: Xuzhou, Jiangsu.  
Cultivar.  
Seed.
PI 518702 to 518729-continued


PI 518730. Solanum acaule Bitter SOLANACEAE

Donated by: Ochoa, C.M., Wild Species Germplasm Bank, International Potato Center, Lima, Peru. Received October 1981.


PI 518731 to 518734. Lens culinaris Medikus FABACEAE Lentil

Donated by: Andreoli, C., Centro Nac. de Pesquisa de Hortalicias, CNPH, Caixa Postal 07-0210, 70359 Brasilia, Brazil. remarks:
Received through CENARGEN/EMBRAPA, Brasilia, and the Western Plant Introduction Station, Pullman, Washington. Received March 8, 1988.


PI 518732 donor id: CNPH 84-122. origin: Brazil. Landrace. Seed.

PI 518733 donor id: CNPH 84-123. origin: Brazil. Landrace. Seed.


PI 518735 to 518744. Zea mays L. POACEAE Corn


PI 518735 origin: China, Peoples Repub of. cultivar: DAPIGUKAI. Cultivar. Seed.
PI 518735 to 518744-continued

cultivar: DONGLINGBAI.

cultivar: ERQIUZI.

cultivar: JI-69.

cultivar: JI-2578.

cultivar: JI-4225.

cultivar: JINDIGHUANG.

cultivar: SHISANYIE.

cultivar: SHUANGSUIBAI.

cultivar: TAILIPANG.

PI 518745 to 518746. Nicotiana tabacum L. SOLANACEAE Tobacco

Donated by: Yuan, W., Ming Yong County, Xi Men Ba 17-67, Ghizhou Province, Peoples Republic of China. Received April 22, 1988.

PI 518745  origin: China, Peoples Repub of.  
cultivar: BAMBOO SHOOT.  
latitude: 21 deg. 59 min. N.  
longitude: 113 deg. 47 min. E.  
Cultivar. Seed.

PI 518746  origin: China, Peoples Repub of.  
cultivar: TAIL.  
latitude: 21 deg. 59 min. N.  
longitude: 113 deg. 47 min. E.  
Cultivar. Seed.

PI 518747. Phaseolus vulgaris L. FABACEAE Garden bean


origin: France.  
cultivar: CALAISIS.  
remarks: Dry type. Vine habit.  
Cultivar. Seed.
PI 518748. Zea mays L. POACEAE Corn

Donated by: Koyama, T., The New York Botanical Garden, Bronx Park, Bronx, New York, United States. remarks: Received through increase by CIMMYT, Mexico, D.F., Mexico. Received May 13, 1988.


PI 518749. Zea mays L. POACEAE Corn

Donated by: Sperling, C.R., The Harvard University Herbaria, 22 Divinity Avenue, Cambridge, Massachusetts, United States. remarks: Received through 1986 ARS-Sponsored exploration and increase by CIMMYT, Mexico, D.F., Mexico. Received May 13, 1988.

donor id: TU-86-39-09. origin: Turkey. collected: July 18, 1986. locality: From storage, open oak scrub forest region, 29.6km S of Hakkari on Hakkari-Cukurca road, then 0.6km N on road to Baslik, Uzumci village, Hakkari Province. latitude: 37 deg. 30 min. N. longitude: 43 deg. 36 min. E. elevation: 1170m. remarks: Obtained from 88 yr. old farmer. Open-pollinated type cultivated for many years. Cultivated. Seed.

PI 518750 to 518754. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Jockovic, D., Institute of Field and Vegetable Crops, Faculty of Agriculture, Maksima Gorkog 30, Novi Sad, Yugoslavia. Received April 19, 1988.


PI 518755. Zea mays L. POACEAE Corn

Donated by: Plant Sciences Institute, USDA-ARS, Beltsville, Maryland, United States. Received April 11, 1988.
PI 518755—continued

**origin:** China, Peoples Repub of. **cultivar:** WHITE EARLY. Cultivar. Seed.

PI 518756. Glycine max (L.) Merr. FABACEAE Soybean

**Donated by:** Rossetto, C.J., Instituto Agronomico de Campinas, Campinas, San Paulo, Brazil. **remarks:** Received through Dr. Marcos Kogan, Illinois Natural History Survey, University of Illinois, Urbana. Received May 6, 1988.

**donor id:** IAC 100. **origin:** Brazil. **cultivar:** CENTENARIA. **other id:** IAC 84/20-1. **insect resistance:** Southern green stink bug (Nezara viridula). Cultivar. Seed.

PI 518757 to 518759. Glycine max (L.) Merr. FABACEAE Soybean

**Donated by:** Shanmugasundaram, S., Asian Vegetable Research & Dev. Center, P.O. Box 42, Shanhua, Tainan, Taiwan. Received April 21, 1988.

PI 518757 **donor id:** AGS 313. **origin:** Taiwan. **pedigree:** G 2120 M8(20-4). **remarks:** Gamma ray induced mutant, sister line of Tidar. Breeding Material. Seed.

PI 518758 **donor id:** AGS 292. **origin:** Taiwan. **cultivar:** KAOHSIUNG NO. 1. **pedigree:** Pure line selection from Taisho Shiroge. **remarks:** Developed by the Kaohsiung District Agricultural Improvement Station. Cultivar. Seed.

PI 518759 **donor id:** AGS 129. **origin:** Taiwan. **cultivar:** KAOHSIUNG NO. 10. **pedigree:** Shih Shih/SRF 400. **remarks:** Developed by the Kaohsiung District Agricultural Improvement Station. Released in 1986. Cultivar. Seed.

PI 518760. Humulus lupulus L. CANNABACEAE Hop

**Donated by:** Haunold, A., USDA-ARS, Dept. of Crop Science, Oregon State University, Corvallis, Oregon, United States; and Nickerson, G.B., Dept. of Agricultural Chemistry, Oregon State University, Corvallis, Oregon, United States. **remarks:** Contribution of USDA-ARS in cooperation with the Oregon Agricultural Experiment Station. Received May 17, 1988.
PI 518760-continued


PI 518761 to 518768. Gossypium hirsutum L. MALVACEAE Cotton

Donated by: Meredith, W.R. Jr., USDA-ARS, Jamie Whitten Delta States Research Cen., Box 345, Stoneville, Mississippi, United States. remarks: Joint contribution of USDA-ARS and the Mississippi Agricultural and Forestry Experiment Station, Delta Branch. Received May 17, 1988.


PI 518761 to 518768-continued


PI 518769 to 518770. Zea mays L. POACEAE Corn

Donated by: Widstrom, N.W., Insect Biol. and Pop. Mgt. Research Lab., USDA-ARS, P.O. Box 748, Tifton, Georgia, United States; and Wiseman, B.R.; McMillian, W.W., GARDEN, Insect Biol. and Pop. Mgt. Research Lab., USDA-ARS, P.O. Box 748, Tifton, Georgia, United States. remarks: Contribution of USDA-ARS in cooperation with the University of Georgia College of Agriculture Experiment Stations, Coastal Plain Station. Received May 17, 1988.

PI 518769 to 518770—continued

PI 518770  donor id: GT-DDSB(C5). origin: United States. pedigree:
Chain crosses among single crosses between inbreds F6, 
L501, SC235, and F44. other id: GP-181. source: Crop 
Sci. 28(6):1036. group: CSR-MAIZE. remarks: Maturity 
classification late AES 1200. Cobs white. Kernels light 
to medium yellow, dent. Population B provides inbreds 
with medium to late maturity, moderate to good yield, and 
excellent resistance to corn earworm in hybrid 
combination. insect resistance: High to earworm 

PI 518771. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Cooper, R. L., USDA-ARS, Dept. of Agronomy, Ohio Res. 
and Develop. Center, Ohio State University, Wooster, Ohio, United 
States; and Hammond, R.B., Dept. of Entomology, Ohio Res. and 
Develop. Center, Ohio State University, Wooster, Ohio, United 
States. remarks: Cooperative development by USDA-ARS and the Ohio 
Agricultural Research and Develop. Center, Wooster. Received May 

donor id: HC83-123-9. origin: United States. pedigree:
Pixie/PI 229358. other id: GP-111. source: Crop Sci. 
28(6):1037. group: CSR-SOYBEAN. remarks: Maturity late 
Group IV, 10 days later than Pixie. Habit determinate. 
Flowers purple. Pubescence tawny. Seeds yellow with black 
hila, tendency to shatter under hot dry conditions and 
delayed harvest. insect resistance: High to mexican bean 
beetle (Epilachna varivestis). High to Japanese beetle 

PI 518772. Glycine max (L.) Merr. FABACEAE Soybean

Donated by: Hartwig, E.E., Soybean Production Research Unit, 
USDA-ARS, P.O. Box 196, Stoneville, Mississippi, United States. 
Received May 17, 1988.
PI 518772-continued


PI 518773 to 518778. Helianthus annuus L. ASTERACEAE Sunflower

Donated by: Miller, J. F., Gulya, T. J., USDA-ARS, Agronomy Department, North Dakota State University, Fargo, North Dakota, United States. Received May 17, 1988.


PI 518779 to 518781. Beta vulgaris L. CHENOPODIACEAE Sugarbeet

Donated by: Lasa, J.M., Cosejo Superior de Investigaciones Cient, Estacion Experimental de Aula Dei, Zaragoza, Spain; and Hecker, R.J., Crops Research Lab., USDA-ARS, Colorado State University, Ft. Collins, Colorado, United States. remarks: Cooperative research of CSIC and USDA-ARS. Received May 17, 1988.


PI 518779 to 518781—continued


PI 518782 to 518815. Triticum aestivum L. POACEAE Common wheat


PI 518782 to 518815-continued


PI 518816 to 518818. Triticum aestivum L. POACEAE Common wheat

Donated by: National Seed Storage Laboratory, USDA-ARS, Colorado State University, Ft. Collins, Colorado, United States. Received March 04, 1988.


PI 518819. Festuca occidentalis Hook. POACEAE Western Fescue

Donated by: Corning, M., Corvallis Plant Materials Center, USDA-SCS, 3420 N.E. Granger Avenue, Corvallis, Oregon, United States. remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 12, 1988.
donor id: 9028822. origin: United States. collected: July 1982. collector: R. Borine. other id: T-28822. other id: CO 900. locality: Old logging road, Jackson County. Sec. 11, T395, R2W. elevation: 1433m. remarks: Annual ppt. 762mm. Plants tufted, erect, 40-100cm tall. Panicles open, often drooping, 7-20cm long. Adapted to moderate-well and well-drained medium to coarse textured soils for rangeland and pastureland plantings in southwestern Oregon for improved forage, cover crop, as well as critical area plantings to reduce erosion. Breeding Material. Seed.

PI 518820 to 518821. Panicum amarum Ell. POACEAE Bitter panicgrass

Donated by: Yohn, H.E., Cape May Plant Materials Center, USDA-SCS, 1536 Route 9N, Cape May Court House, New Jersey, United States. remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 12, 1988.


PI 518822 to 518824. Prunus maritima Marshall ROSACEAE Beach plum

Donated by: Yohn, H.E., Cape May Plant Materials Center, USDA-SCS, 1536 Route 9N, Cape May Court House, New Jersey, United States. remarks: Received through National Plant Materials Center, USDA-SCS, Beltsville, Maryland. Received January 12, 1988.
PI 518822 to 518824-continued

PI 518822  
donor id: 9011275.  origin: United States.  collected: April 1, 1979.  collector: P. Hibbard.  other id: T-11275.  other id: CN-00289.  other id: MLRA: 149.  locality: Near maintenance building at Island Beach State Park, Ocean County.  latitude: 39 deg. 50 min. N.  longitude: 74 deg. 05 min. W.  remarks: Shrub, densely branched, 0.6-2.1m. Shape variable from low to straggling to ascending. Flowers white, 1.27cm diameter. Fruit blue to purple 1.90cm diameter. Sand stabilizing plant and possible source of wildlife food. Adapted to sandy soils of Atlantic coastal plain from New England to Maryland. Precipitation 1016mm. Associated with Hudsonia tomentosa, Toxicodendron radicans and Myrica pensylvanica. Breeding Material. Seed.

PI 518823  
donor id: 9012013.  origin: United States.  collected: October 1, 1979.  collector: C. R. Belcher.  other id: T-12013.  other id: CN-00302.  other id: MLRA: 153B.  locality: 0.6km S of Indian River Inlet Bridge, Sussex County.  latitude: 38 deg. 35 min. N.  longitude: 75 deg. 05 min. W.  remarks: Shrub, densely branched, 0.6-2.1m. Shape variable from low to straggling to ascending. Flowers white, 1.27cm diameter. Fruit blue to purple 1.90cm diameter. Sand stabilizing plant and possible source of wildlife food. Adapted to sandy soils of Atlantic coastal plain from New England to Maryland. Plants leafy. Fruit retention good. Colony large, 12mm diameter. Precipitation 1143mm. Breeding Material. Seed.

PI 518824  
donor id: 9013172.  origin: United States.  collected: August 1, 1969.  collector: C. Belcher.  other id: T-13172.  other id: CN-71355.  other id: MLRA: 149.  locality: Within observation row planting of NJ-469 at Cape May PMC.  latitude: 39 deg. 7 min. N.  longitude: 74 deg. 05 min. W.  remarks: Shrub, densely branched, 0.6-2.1m. Shape variable from low to straggling to ascending. Flowers white, 1.27cm diameter. Fruits blue to purple, yellow on one plant, 1.90cm diameter. Sand stabilizing plant and possible source of wildlife food. Adapted to sandy soils of Atlantic coastal plain from New England to Maryland. Precipitation 1016mm. Breeding Material. Seed.

PI 518825 to 518832. Glycine max (L.) Merr. FABACEAE Soybean  

Donated by: Sawada, S., Obihiro Univ. of Agri. & Veterinary Med., Inada-cho, Obihiro City, Hokkaido, Japan. remarks: Received through R. Palmer, USDA-ARS, Dept. of Agronomy, Iowa State University, Ames, Iowa. Received May 17, 1988.
PI 518825 to 518832-continued


PI 518833.  Glycine max (L.) Merr.  FABACEAE  Soybean

Donated by: North Star Grain Company, Takanawa, Minato-ku, Tokyo, Japan. Received May 18, 1988.


PI 518834 to 518835.  Triticum aestivum L.  POACEAE  Common wheat

Donated by: Yue, Dahua, Institute of Crop Germplasm Resources, Chinese Academy of Agricultural Sciences, 30 Bai Shi Qiao Rd, Beijing, Peoples Repub. of China. Received March 17, 1988.


PI 518836 to 518838. Brassica oleracea var. capitata L. BRASSICACEAE
Cabbage

Donated by: Wang, J., Institute of Vegetable and Floriculture, Chinese Academy of Agriculture Sciences, Beijing, Peoples Repub. of China. Received May 18, 1988.

PI 518836 origin: China, Peoples Repub of. cultivar: JINGFENG.

PI 518837 origin: China, Peoples Repub of. cultivar: WANFENG.

PI 518838 origin: China, Peoples Repub of. cultivar: ZHONGGAN 8.

PI 518839 to 518847. Brassica pekinensis (Lour.) Rupr. BRASSICACEAE
Chinese cabbage

Donated by: Wang, J., Institute of Vegetable and Floriculture, Chinese Academy of Agriculture Sciences, Beijing, Peoples Repub. of China. Received May 18, 1988.

PI 518839 origin: China, Peoples Repub of. cultivar: BEIJING FANXINBAI. Cultivar. Seed.

PI 518840 origin: China, Peoples Repub of. cultivar: BEIJING FANXINHUANG. Cultivar. Seed.

PI 518841 origin: China, Peoples Repub of. cultivar: BEIJING XIAO QING KOU. Cultivar. Seed.


PI 518843 origin: China, Peoples Repub of. cultivar: GUANXIAN XIAOBAOTOU. Cultivar. Seed.

PI 518844 origin: China, Peoples Repub of. cultivar: JINQING 12.

PI 518845 origin: China, Peoples Repub of. cultivar: LUBAO.

PI 518846 origin: China, Peoples Repub of. cultivar: TIANJIN QINGMAYE. Cultivar. Seed.

PI 518847 origin: China, Peoples Repub of. cultivar: ZHONGFENG.
PI 518848 to 518854. Cucumis sativus L. CUCURBITACEAE Cucumber

Donated by: Wang, J., Institute of Vegetable and Floriculture, Chinese Academy of Agriculture Sciences, Beijing, Peoples Repub. of China. Received May 18, 1988.

PI 518848 origin: China, Peoples Repub of. cultivar: CHANGCHUN MICI. Cultivar. Seed.


PI 518855 to 518858. Raphanus sativus L. BRASSICACEAE Radish

Donated by: Wang, J., Institute of Vegetable and Floriculture, Chinese Academy of Agriculture Sciences, Beijing, Peoples Repub. of China. Received May 18, 1988.

PI 518855 origin: China, Peoples Repub of. cultivar: HEART BEAUTY. Cultivar. Seed.

PI 518856 origin: China, Peoples Repub of. cultivar: LUDAQING. Cultivar. Seed.

PI 518857 origin: China, Peoples Repub of. cultivar: PEIJIAYINGXIAOYE. Cultivar. Seed.

PI 518858 origin: China, Peoples Repub of. cultivar: QIAOTOUQING. Cultivar. Seed.

PI 518859. X Agrotriticum sp. POACEAE

Donated by: Schaeffer, J.R., Dept. of Plant and Soil Science, Montana State University, Bozeman, Montana, United States. Received April 11, 1988.

PI 518860 to 518863. Cicer pinnatifidum Jaub. & Spach FABACEAE


PI 518864 to 519876. Triticum aestivum L. POACEAE Common wheat

Donated by: Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States. remarks: Materials received through International Rust and Powdery Mildew Nursery Program. Received October 1987.
PI 518864 to 519876-continued


PI 518864 to 519876-continued


PI 518887  origin: United States.  
cultivar: CO 701290.  
pedigree: NADADORES 63/CO 662549,70F1290.  

PI 518888  origin: United States.  
cultivar: CO 701354.  
pedigree: NADADORES 63/TRAPPER/2/LANCER (KS 62136), 70F1354.  

PI 518889  origin: United States.  
cultivar: CO 701976.  

PI 518890  origin: United States.  
cultivar: CO 701979.  

PI 518891  origin: United States.  
cultivar: CO 702069.  
pedigree: II-18888/CO 652142/2/LANCER/KS 62136, 70F2069.  

PI 518892  origin: United States.  
cultivar: CO 702150.  
pedigree: NADADORES/CO 652643,70F2150.  

PI 518893  origin: United States.  
cultivar: CO 702179.  
pedigree: NADADORES/CO 652643,70F2179.  

PI 518894  origin: United States.  
cultivar: CO 702188.  
pedigree: NADADORES/CO 652643,70F2188.  

PI 518895  origin: United States.  
cultivar: NE 66429.  
pedigree: FRONTANA/CHEYENNE/2/LANCER.  

PI 518896  origin: United States.  
cultivar: P 5714B3-11-3-1-1.  


PI 518909  origin: United States.  
pedigree: CHEYENNE/2/KIOWA/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518910  origin: United States.  
cultivar: A6258-F-6-13-10.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518911  origin: United States.  
cultivar: A6258-G-5-35-10.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518912  origin: United States.  
cultivar: A6258-G-8-16-7.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518913  origin: United States.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518914  origin: United States.  
cultivar: A6258-G-8-35-10.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518915  origin: United States.  
cultivar: A6258-F-6-13-8.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518916  origin: United States.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518917  origin: United States.  
pedigree: WARRIOR/2/KIOWA/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518918  origin: United States.  
cultivar: A6258-F-6-13-11-5.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518919  origin: United States.  
cultivar: A6258-G-6-24-8-2.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518920  origin: United States.  
cultivar: A6258-G-7-10-4-1.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518921  origin: United States.  
cultivar: A6258-G-8-16-4-4.  
pedigree: CHEYENNE*2/PI 178383.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.
PI 518864 to 519876-continued

PI 518934  
**origin:** United States.  **cultivar:** OR 6999.  **pedigree:**
GAINES*2/4*OMAR/PI 178383, 2838.  **disease resistance:**

PI 518935  
**origin:** United States.  **cultivar:** OR 6974.  **pedigree:**
GAINES/2/4*OMAR/PI 178383/3/NORIN 10/STARING, 1871.  
**disease resistance:** Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 518936  
**origin:** United States.  **cultivar:** OR 6973.  **pedigree:**
GAINES/2/4*OMAR/PI 178383/3/NORIN 10/STARING, 1882.  
**disease resistance:** Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 518937  
**origin:** United States.  **cultivar:** OR 6990.  **pedigree:**
GAINES/2/4*OMAR/PI 178383/3/NORIN 10/STARING, 2324.  
**disease resistance:** Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 518938  
**origin:** United States.  **cultivar:** OR 6995.  **pedigree:**
GAINES/2/4*OMAR/PI 178383/3/NORIN 10/STARING, 2385.  
**disease resistance:** Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 518939  
**origin:** United States.  **cultivar:** OR 6997.  **pedigree:**
GAINES*2/4*OMAR/PI 178383/3/NORIN 10/STARING, 2443.  
**disease resistance:** Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 518940  
**origin:** United States.  **cultivar:** OR 69105.  **pedigree:**
**disease resistance:** Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 518941  
**origin:** United States.  **cultivar:** OR 6980.  **pedigree:**
**disease resistance:** Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 518942  
**origin:** United States.  **cultivar:** A 70-7.  **pedigree:** CI
13645/CI 13749/N 98.  **disease resistance:** Yellow (stripe)

PI 518943  
**origin:** United States.  **cultivar:** OR 6976.  **pedigree:**
GAINES/4*OMAR/PI 178383/3/NORIN 10/STARING, 1908.  
**disease resistance:** Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.
PI 518944  
**origin:** United States.  
**cultivar:** A 70-63.  
**pedigree:** CI 13645/2*CHINESE/AGROPYRON ELONGATUM/PAWNEE/2*OMAR.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518945  
**origin:** United States.  
**cultivar:** A70-66.  
**pedigree:** CI 13645/2*CHINESE/AGROPYRON ELONGATUM/PAWNEE/2*OMAR.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518946  
**origin:** United States.  
**cultivar:** M70-124.  
**pedigree:** ELGIN*2/PI 178383.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518947  
**origin:** United States.  
**cultivar:** A70-69.  
**pedigree:** CI 13645/2*CHINESE/AGROPYRON ELONGATUM/PAWNEE/2*OMAR.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518948  
**origin:** United States.  
**cultivar:** A70-73.  
**pedigree:** CI 13645/2629-14/3*OMAR.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518949  
**origin:** United States.  
**cultivar:** A70-120.  
**pedigree:** PI 94349/BURT/4*OMAR.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518950  
**origin:** United States.  
**cultivar:** A70-107.  
**pedigree:** CI 13645/OMAR/AUCHY COMBIER(PI 174595).  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518951  
**origin:** United States.  
**cultivar:** A70-158.  
**pedigree:** CI 13431/C 7805/CI 13447/3*OMAR.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518952  
**origin:** United States.  
**cultivar:** WA 5827.  
**pedigree:** PI 178383/2*BURT/2/OMAR/1834,3,VD 66263.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518953  
**origin:** United States.  
**cultivar:** A70-175.  
**pedigree:** PI 94349/C 13447/C 13431.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518954  
**origin:** United States.  
**cultivar:** A70-176.  
**pedigree:** PI 94349/C 13447/C 13431.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518955  
**origin:** United States.  
**cultivar:** A70-180.  
**pedigree:** CI 13431/TRITICUM DICOCCUM/2*GAINES.  
**disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
PI 518956  origin: United States.  
cultivar: A70-183.  
pedigree: PI 94349/C1 13447/C1 13431.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518957  origin: United States.  
cultivar: A70-185.  
pedigree: PI 94349/C1 13447/C1 13431.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518958  origin: United States.  
cultivar: A70-188.  
pedigree: PI 94349/C1 13447/C1 13431.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518959  origin: United States.  
cultivar: A70-192.  
pedigree: CI 13431/TRITICUM DICOCCUM/2*GAINES.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518960  origin: United States.  
cultivar: A70-193.  
pedigree: CI 13431/TRITICUM DICOCCUM/2*GAINES.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518961  origin: United States.  
cultivar: A70-195.  
pedigree: CI 13431/TRITICUM DICOCCUM/2*GAINES.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518962  origin: United States.  
cultivar: A70-196.  
pedigree: CI 13431/TRITICUM DICOCCUM/2*GAINES.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518963  origin: United States.  
cultivar: M70-1293.  
pedigree: SELECTION M68-1293.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518964  origin: United States.  
cultivar: M70-1428.  
pedigree: OMAR*3/PI 178383/2/RIEBESEL.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518965  origin: United States.  
cultivar: M70-1441.  
pedigree: OMAR*3/PI 178383/2/RIEBESEL.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518966  origin: United States.  
cultivar: M70-1442.  
pedigree: OMAR*3/PI 178383/2/RIEBESEL.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518967  origin: United States.  
cultivar: M70-1452.  
pedigree: OMAR*3/PI 178383/2/RIEBESEL.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518968  origin: United States.  
cultivar: WA 005776.  
pedigree: NUDIF TP 12.  
disease resistance: Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.
PI 518969  
**origin:** United States.  
**cultivar:** KS 70356.  
**pedigree:** PARKER*4/AGENT.  
**disease resistance:** Leaf rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518970  
**origin:** Hungary.  
**cultivar:** GK SAGVARI 2.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518971  
**origin:** United States.  
**cultivar:** M70-1461.  
**pedigree:** OMAR*3/PI 178383/2/RIEBESEL.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518972  
**origin:** United States.  
**cultivar:** WA 7117492.  
**pedigree:** SELECTION 2629-14/3*OMAR, 72Y-250.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518973  
**origin:** United States.  
**cultivar:** WA 7117543.  
**pedigree:** CI 13431/CI 7805/2/CI 13417/3/3*OMAR, 72Y-174.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518974  
**origin:** United States.  
**cultivar:** WA 7117547.  
**pedigree:** CHINESE/AGROPYRON ELONGATUM/PAWNEE/2/3*OMAR, 72Y-277.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518975  
**origin:** Hungary.  
**cultivar:** GK SAGVARI 3.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518976  
**origin:** United States.  
**cultivar:** WA 7117719.  
**pedigree:** REICHERSBERG 42/2*BURT, 72Y-372.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518977  
**origin:** United States.  
**cultivar:** WA 7117747.  
**pedigree:** IBIS/2*BURT, 72Y-394.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518978  
**origin:** United States.  
**cultivar:** WA 7117754.  
**pedigree:** IBIS/2*BURT, 72Y-399.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518979  
**origin:** United States.  
**cultivar:** WA 7117759.  
**pedigree:** IBIS/2*OMAR, 72Y-402.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 518980  
**origin:** United States.  
**cultivar:** OK 65R5774.  
**pedigree:** BUCK TANDIL SELECTION.  
**disease resistance:** Leaf rust.  
Winter Annual.  
Cultivated.  
Seed.


PI 518993 origin: United States.  
cultivar: ID 71013.  
pedigree: 
NORIN 10/BREVOR/2/5*BURT/3/2*TENDOY.  
disease resistance: 

PI 518994 origin: United States.  
cultivar: ID 71015.  
pedigree: 
HUSSAR/*3CHEYENNE/2/ITANA 65/4/REX/RIO/2*CHEYENNE/2/3* 
COMANCHE/3/ITANA 65.  
disease resistance: 

PI 518995 origin: United States.  
cultivar: ID 71016.  
pedigree: 
HUSSAR/*3CHEYENNE/2/ITANA 65/4/REX/RIO/2*CHEYENNE/2/3* 
COMMANCHE/3/ITANA 65.  
disease resistance: 

PI 518996 origin: United States.  
cultivar: ID 71020.  
pedigree: 
HUSSAR/*3CHEYENNE/2/ITANA 65/4/REX/RIO/2*CHEYENNE/2/3* 
COMMANCHE/3/TENDOY.  
disease resistance: 

PI 518997 origin: United States.  
cultivar: ID 71023.  
pedigree: 
BURT/ITANA SELECTION 215/2/ITANA 65.  
disease resistance: 

PI 518998 origin: United States.  
cultivar: ID 71030.  
pedigree: 
BURT/ITANA SELECTION 215/2/TENDOY.  
disease resistance: 

PI 518999 origin: United States.  
cultivar: ID 71031.  
pedigree: 
BURT/ITANA SELECTION 215/2/TENDOY.  
disease resistance: 

PI 519000 origin: United States.  
cultivar: ID 71034.  
pedigree: 
BURT/ITANA SELECTION 215/2/TENDOY.  
disease resistance: 

PI 519001 origin: United States.  
cultivar: ID 71037.  
pedigree: 
REQUA/TENDOY.  
disease resistance: 

PI 519002 origin: United States.  
cultivar: ID 71038.  
pedigree: 
ITANA 65/GOLDEN.  
disease resistance: 

PI 519003 origin: Chile.  
cultivar: N998-1C-1C-2C.  
pedigree: MARNE DESPREZ/4/*2YAKTANA 54/3/NORIN 10/BREVOR/2/KENTANA 54.  
disease resistance: 

PI 519004 origin: Chile.  
cultivar: N-1005-2C-1C-1C.  
pedigree: 
MARNE DESPREZ/FUNELLO.  
disease resistance: 


PI 518864 to 519876


PI 518864 to 519876-continued

PI 519037 origin: United States. cultivar: MT 7192. pedigree:
WESTMONT*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231.
Cultivated. Seed.

PI 519038 origin: United States. cultivar: MT 7193. pedigree:
WESTMONT*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231.
Cultivated. Seed.

PI 519039 origin: United States. cultivar: MT 7194. pedigree:
WESTMONT*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231.
Cultivated. Seed.

PI 519040 origin: United States. cultivar: MT 7195. pedigree:
WESTMONT*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231.
Cultivated. Seed.

PI 519041 origin: United States. cultivar: MT 7196. pedigree:
WESTMONT*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231.
Cultivated. Seed.

PI 519042 origin: United States. cultivar: MT 7197. pedigree:
WESTMONT*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231.
Cultivated. Seed.

PI 519043 origin: United States. cultivar: MT 7198. pedigree:
WESTMONT*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231.
Cultivated. Seed.

PI 519044 origin: United States. cultivar: MT 71100. pedigree:
YOGO SHORT STRAW 2458/2/WESTMONT*2/PI 178383-7-13-9.
Cultivated. Seed.

PI 519045 origin: United States. cultivar: MT 71102. pedigree:
YOGO SHORT STRAW 2458/2/WESTMONT*2/PI 178383-7-13-9.
Cultivated. Seed.

PI 519046 origin: United States. cultivar: MT 71103. pedigree:
YOGO SHORT STRAW 2458/2/WESTMONT*2/PI 178383-7-13-9.
Cultivated. Seed.


PI 518864 to 519876-continued


PI 519089  origin: Romania.  
cultivar: FUNDULEA 4-71.  
pedigree:  
NEUZUCHT/BEZOSTAIA 1.  

PI 519090  origin: Romania.  
cultivar: FUNDULEA 7-71.  
pedigree:  
NEUZUCHT/BEZOSTAIA 1.  

PI 519091  origin: Romania.  
cultivar: FUNDULEA 10-71.  
pedigree:  
NEUZUCHT/BEZOSTAIA 1.  

PI 519092  origin: Romania.  
cultivar: FUNDULEA 11-71.  
pedigree:  
NEUZUCHT/BEZOSTAIA 1.  

PI 519093  origin: Romania.  
cultivar: FUNDULEA 22-71.  
pedigree:  
JUBILIAR II/BEZOSTAIA 4 (F6-62)/2/NEUZUCHT.  

PI 519094  origin: Romania.  
pedigree:  
BEZOSTAIA 1/PRODUTTORE (128-1)/2/AURORA.  

PI 519095  origin: Romania.  
pedigree:  
NEUZUCHT/BEZOSTAIA 1.  

PI 519096  origin: Romania.  
cultivar: FUNDULEA 134-71.  
pedigree:  
NEUZUCHT/BEZOSTAIA 1.  

PI 519097  origin: Romania.  
pedigree:  
BEZOSTAIA 1/PRODUTTORE (128-1)/2/AURORA.  

PI 519098  origin: Romania.  
cultivar: L 227-H 3.  

PI 519099  origin: Bulgaria.  

PI 519100  origin: United States.  
cultivar: 7-20D-2D-2D-OH.  
pedigree: PLATIFEN/COFEN SIB.  
PI 519101  origin: United States.  cultivar: A 1180-3D-4D-3D-1D-OH.  
pedigree: OROFEN/ENAFEN SIB/2/VILMORIN 53/VOGEL 9108.  
Cultivated.  Seed.

PI 519102  origin: United Kingdom.  cultivar: TP-8-8-1970.  
pedigree: SOSSONAI/S/MINISTER.  disease resistance: Yellow  

pedigree: HOLDFAST/HYBRID 46.  disease resistance: Yellow  

PI 519104  origin: Hungary.  cultivar: GK ILDIKO 2.  disease  
resistance: Yellow (stripe) rust and leaf rust.  Winter  

PI 519105  origin: Hungary.  cultivar: GK ILDIKO 3.  disease  

PI 519106  origin: United States.  cultivar: MT 7571.  pedigree:  
14-2/2/REGAL/CHEYENNE 37-3-6.  disease resistance: Yellow  

PI 519107  origin: United States.  cultivar: MT 7570.  pedigree:  
14-2/2/REGAL/CHEYENNE 37-3-6.  disease resistance: Yellow  

PI 519108  origin: United States.  cultivar: MT 7569.  pedigree:  
14-2/2/REGAL/CHEYENNE 37-3-6.  disease resistance: Yellow  

PI 519109  origin: United States.  cultivar: MT 7568.  pedigree:  
14-2/2/REGAL/CHEYENNE 39-7-4.  disease resistance: Yellow  

PI 519110  origin: United States.  cultivar: MT 7566.  pedigree:  
11-3/2/REGAL/CHEYENNE 39-7-4.  disease resistance: Yellow  

PI 519111  origin: United States.  cultivar: MT 7565.  pedigree:  
11-3/2/REGAL/CHEYENNE 39-7-4.  disease resistance: Yellow  

PI 519112  origin: United States.  cultivar: MT 7564.  pedigree:  
11-3/2/REGAL/CHEYENNE 39-7-4.  disease resistance: Yellow  

PI 519113  origin: United States.  cultivar: MT 7563.  pedigree:  
18-1/DIEHL-MEDITERRANEAN.  disease resistance: Yellow  
PI 518864 to 519876-continued


PI 518864 to 519876-continued

PI 519127 origin: United States.  
cultivar: OK 71R8001.  
pedigree: FRONTANA/2/KENYA 58/NEWSTHATCH/3/PAWNEE.  
Cultivated.  Seed.

PI 519128 origin: Romania.  
cultivar: FUNDULEA 63-70.  
pedigree: BEZOSTAIA 1 PRODUTTORE (128-1)/2/KAUKAZ.  
Cultivated.  Seed.

PI 519129 origin: Hungary.  
cultivar: F 12.71/BEZOSTAIA 2.  
Cultivated.  Seed.

PI 519130 origin: United States.  
cultivar: MT 7541.  
pedigree: 10-3/2/REGAL/CHEYENNE 39-7-4.  
Cultivated.  Seed.

PI 519131 origin: United States.  
cultivar: WA 74-18840.  
pedigree: SUWON 92/6*OMAR/2/TRITICUM SPELTOIDES/COASTAL/2/2*OMAR.  
Cultivated.  Seed.

PI 519132 origin: United States.  
cultivar: WA 74-18795.  
pedigree: SUWON 92/6*OMAR/2/CI13431/CI13431/CI7805/CI13447/2*OMAR.  
Cultivated.  Seed.

PI 519133 origin: Hungary.  
cultivar: F 56.72/453.602/2/NS 886.  
Cultivated.  Seed.

PI 519134 origin: United States.  
cultivar: OH 118.  
pedigree: BRANCHED EAR 1-5/LOGAN/2/ARTHUR.  
Cultivated.  Seed.

PI 519135 origin: United States.  
cultivar: NE 73591.  
pedigree: HOMESTEAD/2/GAGE/LANCER.  
disease resistance: Yellow (stripe) rust and leaf rust.  Winter Annual.  
Cultivated.  Seed.

PI 519136 origin: United States.  
cultivar: NE 73843.  
pedigree: PONCA/2*CHEYENNE/IL 1/CHINESE*2/TRITICUM TIMOPHEEVI/CHEYENNE /TENMARQ/MEDITERRANEAN/HOPE/SANDO 60/MCMURACHY/EXCHANGE/ REDMAN/2*HOPE/TURKEY/CHEYENNE/PONCA/2*CHEYENNE.  
disease resistance: Yellow (stripe) rust and stem rust.  Winter Annual.  
Cultivated.  Seed.

PI 519137 origin: United States.  
cultivar: NE 74646.  
pedigree: MARA/2*SCOUT/2/SENTINEL.  
Cultivated.  Seed.
PI 518864 to 519876-continued

PI 519138  origin: United States.  cultivar: FLX64-103-347.  
pedigree: COASTAL/NORIN BREVIOR SEL 2/BENHUR.  other id: >. 

PI 519139  origin: United States.  cultivar: OK 71R8210.  pedigree:
TRITICUM DICOCCOIDES/AEGILOPS SPELOIDES/2/AUSTIN/3/QUADRAT /4/QUANAH.  disease 
resistance: Yellow (stripe) rust and leaf rust.  Winter 

PI 519140  origin: United States.  cultivar: UNKNOWN, OK 74R2944. 

PI 519141  origin: United States.  cultivar: OR 7142.  pedigree: 
CI 13748/MORO, 142.  disease resistance: Yellow (stripe) 

PI 519142  origin: United States.  cultivar: ARK 15-11-3.  pedigree: 
STADLER/BENHUR.  disease resistance: Leaf rust.  Winter 

PI 519143  origin: Romania.  cultivar: LOVRIN 25.  disease 

PI 519144  origin: Romania.  cultivar: LOVRIN 29.  disease 

PI 519145  origin: Romania.  cultivar: FUNDULAE 51-68.  pedigree: 
MCN/BEZOSTAYA 1.  disease resistance: Yellow (stripe) 

PI 519146  origin: Romania.  cultivar: FUNDULAE 80-73.  pedigree: 
2E+CH/MNN.  disease resistance: Leaf rust.  Winter 


PI 519148  origin: United States.  cultivar: OK 74R2150.  pedigree: 

PI 519149  origin: United States.  cultivar: OK 74R2893.  pedigree: 
KANRED/HARD FEDERATION/2/5*WICHITA/TRANSFER.  disease 


PI 518864 to 519876-continued


PI 519173  origin: Chile.  cultivar: CAR 1906.  pedigree:
6210/4/YAKTANA 54/2/NORIN 10/BREVOR/3/Ethiopia ST
464/5/2* BIDI 17.  disease resistance: Yellow (stripe)

PI 519174  origin: Chile.  cultivar: CAR 1919.  pedigree:
CAPPELLI/2/LANGDON DWARF F4/LANGDON/3/2*BIDI 17.  disease
resistance: Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 519175  origin: Chile.  cultivar: CAR 1924.  pedigree:
BIDI 17*2/3/CANDEALFEN/2/LANGDON DWARF F4/LANGDON.
Disease resistance: Yellow (stripe) rust.  Winter Annual.
Cultivated.  Seed.

PI 519176  origin: Chile.  cultivar: CAR 1938.  pedigree:
CAPPELLI/2/LANGDON DWARF F4/LANGDON/3/2*BIDI 17.  Disease
resistance: Yellow (stripe) and leaf rust.  Winter

pedigree:
KNOX/Frontana/KENYA/NEWTHATCH/4/WAKELAND/7/ARTHUR 71
TYPE*3 /6/ARTHUR TYPE *6/AGATHA/5/BEAU
Cultivated.  Seed.

PI 519178  origin: United States.  cultivar: NE 77443.  pedigree:
PARKER/7/IL 1/2/CHINESE*2/TRITICUM TIMOPHEEVI/6/CHEYENNE/
TENMARQ/MEDITERRANEAN/HOPE/8/CENTURK.  disease
Seed.

PI 519179  origin: United States.  cultivar: NE 77577.  pedigree:
WARRIOR5/AGENT/2/KAVKAZ.  disease resistance: Leaf rust.

PI 519180  origin: United States.  cultivar: NE 77652.  pedigree:
BEZOSTAIA 1/CENTURK/2/ARTHUR/CENTURK.  disease
Seed.

PI 519181  origin: United States.  cultivar: NE 77655.  pedigree:
BEZOSTAIA 1/CENTURK/2/ARTHUR/CENTURK.  disease
resistance: Stem and leaf rust.  Winter Annual.
Cultivated.  Seed.
PI 518864 to 519876-continued

PI 519183  

PI 519184  

PI 519185  

PI 519186  

PI 519187  

PI 519188  

PI 519189  

PI 519190  

PI 519191  

PI 519192  

PI 519193  

PI 519194  


<table>
<thead>
<tr>
<th>PI</th>
<th>Origin</th>
<th>Cultivar</th>
<th>Disease Resistance</th>
<th>Pedigree</th>
</tr>
</thead>
<tbody>
<tr>
<td>519207</td>
<td>Poland</td>
<td>SMH 1739</td>
<td>Powdery mildew. Winter Annual. Cultivated.</td>
<td>S 4625/MARIS HUNTSMAN</td>
</tr>
<tr>
<td>519209</td>
<td>Hungary</td>
<td>F 30.74</td>
<td>Winter Annual. Cultivated. Seed.</td>
<td>ARTHUR/2/SAVA/ROUSSALKA/3/NS 171.2/4</td>
</tr>
<tr>
<td>519211</td>
<td>Chile</td>
<td>CAR 1274</td>
<td>Winter Annual. Cultivated. Seed.</td>
<td></td>
</tr>
<tr>
<td>519212</td>
<td>United States</td>
<td>SWM 743563-01P-13H-OH.</td>
<td>Winter Annual. Cultivated. Seed.</td>
<td>COLLAFEN/BEZOSTAIA/2/SUWON 92/CI 13645 (Vg 0A4) NAINARI 60/4/EMU SIB.</td>
</tr>
<tr>
<td>519213</td>
<td>Hungary</td>
<td>MCV 620-84</td>
<td>Winter Annual. Cultivated. Seed.</td>
<td>KAVKAZ/ZG 5994/2/BEZOSTAIA DWARF/ARTHUR</td>
</tr>
<tr>
<td>519216</td>
<td>Bulgaria</td>
<td>ID 1005-6</td>
<td>Winter Annual. Cultivated. Seed.</td>
<td>TP 114-65A/775-127</td>
</tr>
<tr>
<td>519217</td>
<td>Bulgaria</td>
<td>ID 1227-2</td>
<td>Winter Annual. Cultivated. Seed.</td>
<td>ZG 4527-68/AURORA</td>
</tr>
</tbody>
</table>
PI 518864 to 519876-continued


PI 518864 to 519876—continued


PI 518864 to 519876—continued


PI 519276  
**origin:** Chile.  
**cultivar:** CAR 2337.  
**pedigree:** HILGENDORF/2/CAR 873/HEINE VII,T 5820-1T-07-8T.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519277  
**origin:** Chile.  
**cultivar:** TEMU 58-82.  
**pedigree:** RIEBESEL 47-51/HEINE 110/2/CAR 12/3/MELIFEN/4/CAR 2075/5/NAOFEN,T 12200-T-6T-2T.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519278  
**origin:** Chile.  
**cultivar:** TEMU 69-82.  
**pedigree:** CMH 7.428/H 622.71/3/CMH 72A.508/2/CMH 72.428/MORROCO/4/NAOFEN,T 12365-T-6T-2T.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519279  
**origin:** Chile.  
**cultivar:** TEMU 71-82.  
**pedigree:** CMH 72.428/H 622.71/3/CMH 72A.508/2/CMH 72.428/MORROCO/4/NAOFEN,T 12365-T-6T-3T.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519280  
**origin:** Chile.  
**cultivar:** TEMU 84-82.  
**pedigree:** BUDIFEN/2/KAVKAZ/UP 301,T 12942-T-3T-9T.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519281  
**origin:** Chile.  
**cultivar:** TEMU 88-82.  
**pedigree:** TEMU 179-74/8/MAYO 54/NORIN 10/BREVOR/YAQUI 50/4/KENYA LINC/5/CAPPELLE DESPREZ/6/BUHO/7/MONCHO SIB,T 12990-T-1T-1T.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519282  
**origin:** Chile.  
**cultivar:** TEMU 94-82.  
**pedigree:** TEMU 179-74/TEMU 39-76,T 13003-T-2T-8T.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519283  
**origin:** United States.  
**cultivar:** SWM 791497*-1H-2H-1H-1H.  
**pedigree:** RIEBESEL 47-51/URQUIE 105.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519284  
**origin:** United States.  
**cultivar:** SWO 730899B-2H-1P-1P-OH.  
**pedigree:** RIEBESEL 47-51/ANZA/3/KAVKAZ/HYSLOP/2/YAMHILL/TOBARI 66.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.

PI 519285  
**origin:** United States.  
**cultivar:** SWM 766548*-11P-1P-OH.  
**pedigree:** KOEL PUMAFEN/3/SIETE CERROS/2/CIANO/CALIDAD/4/CLEO.  
**disease resistance:** Yellow (stripe) rust.  
Winter Annual.  
Cultivated.  
Seed.
PI 519286  

PI 519287  
**origin:** United States.  **cultivar:** SWM 730627*-2H-1S-1H-OP.  **pedigree:** ZG 7980-69/2/BLUEBIRD/CIANO SIB.  **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 519288  
**origin:** United States.  **cultivar:** SWD 71854-04H-02H-3H-OS.  **pedigree:** II-58-57/ODZI.  **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 519289  
**origin:** United States.  **cultivar:** SWD 71432C-01H-1H-1P-1HP.  **pedigree:** ANZA/4/VILMORIN 29/VG 8881/2/INIA SIB/3/55-1744/DRUCHAMP.  **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 519290  
**origin:** United States.  **cultivar:** SWO 730902F-1H-1P-OP.  **pedigree:** 55-1744/SIETE CERROS/2/SUWON/ROEDEL.  **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 519291  
**origin:** United States.  **cultivar:** SC 780934.  **pedigree:** BLUEBOY II/MCNAIR 1833.  **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 519292  
**origin:** United States.  **cultivar:** SC 753701.  **pedigree:** BLUEBOY/ANDNOX/2/TIFTON 1452.  **disease resistance:** Powdery mildew and leaf rust. Winter Annual. Cultivated. Seed.

PI 519293  
**origin:** Mexico.  **cultivar:** CM 9799-126M-1M-4Y-OY-OM.  **pedigree:** BITTERN SIB.  **disease resistance:** Stem and leaf rust, yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 519294  
**origin:** United States.  **cultivar:** SC 754328.  **pedigree:** TIFTON 1438/MARKEIM 26.  **disease resistance:** Powdery mildew. Winter Annual. Cultivated. Seed.

PI 519295  
**origin:** France.  **cultivar:** SI 5.  **pedigree:** VPM/MOISSON/2/US 60-43/PRIEUR.  **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.

PI 519296  
**origin:** France.  **cultivar:** BULK PV63.6.  **pedigree:** MORRIS HUNTSMAN/2/VPM/MOISSON.  **disease resistance:** Powdery mildew and leaf rust. Winter Annual. Cultivated. Seed.
<table>
<thead>
<tr>
<th>PI Number</th>
<th>Origin</th>
<th>Cultivar</th>
<th>Pedigree</th>
<th>Disease Resistance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI 519303</td>
<td>France</td>
<td>VPM 1</td>
<td>AEGILOPS VENTRICOSA/TRITICUM PERSICUM/2/3*MARNE</td>
<td>Leaf and stem rust, yellow (stripe) rust.</td>
<td>Winter Annual. Cultivated. Seed.</td>
</tr>
<tr>
<td>PI 519308</td>
<td>Mexico</td>
<td>19008-52M-4Y-4M-2Y-100C</td>
<td>LERMA ROJO 64/SONORA 64</td>
<td>Stem and leaf rust.</td>
<td>Spring Annual. Cultivated. Seed.</td>
</tr>
</tbody>
</table>


PI 518864 to 519876-continued


PI 519332  **origin:** Colombia.  **cultivar:** 12193-7T-1B-5T, FAO 25.319.  **pedigree:** FRONTANA/KENYA 58/2/NEWTHATCH/3/2BONZA.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519333  **origin:** Chile.  **cultivar:** T 12535-T-3P-2T, TEMU 163-82.  **pedigree:** N.S. 10-92/3/CORRE CAMINOS/INIA/2/CALIDAD.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519334  **origin:** Colombia.  **cultivar:** 13022-9B-1T-2B-1T-1B, FAO 25.307.  **pedigree:** BONZA/2/2*AFRICA/MAYO.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.


PI 519336  **origin:** Chile.  **cultivar:** TEMU 162-82.  **pedigree:** BUCK MIRAMAR/3/CORRE CAMINOS/INIA/2/CALIDAD, T 12533-T-2P-1T.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519337  **origin:** Mexico.  **cultivar:** 18883-6M-6R-6C-1Y-100C.  **pedigree:** ROQUE RESELECTION.  **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519338  **origin:** Mexico.  **cultivar:** 2239-9M-3T-1M-2R.  **pedigree:** NARINO 59-100Y/3/PENJAMO 62/GABO/2/TEZANOS PINTOS PRECOZ /KNOTT #2M.  **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519339  **origin:** Mexico.  **cultivar:** 22346-39M-1R-2M-1T.  **pedigree:** SONORA 64A/2/TEZANOS PINTOS PRECOZ/YAQUI 54/3/SONORA 64/ YAQUI 54 ENANO/2/GABATO.  **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519340  **origin:** Mexico.  **cultivar:** NOROESTE 66, VI-Y-V-147.  **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519341  **origin:** Mexico.  **cultivar:** INIA SIB, 19008-52M-1Y-5M-100Y-100C-101Y.  **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519342  **origin:** Mexico.  **cultivar:** 22964-3Y-5M.  **pedigree:** TEZANOS PINTOS PRECOZ/SUPREMO 64/2/II-8156.  **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
PI 518864 to 519876-continued


PI 519354
origin: Mexico.  
cultivar: II-26478-7Y-10M-0Y.  
pedigree: INIA/23584,PC19.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519355
origin: Mexico.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519356
origin: Mexico.  
cultivar: II-23584-18M-10Y-2M-1Y-1M-0Y,  
PC66.  
pedigree: CIANO SIB/2/SONORA 64/KLEIN  
RENIDOR/3/8156 B,PC66.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519357
origin: Mexico.  
cultivar: II-23584-18M-10Y-2M-3Y-1M-0Y.  
pedigree: CIANO SIB/2/SONORA 64/KLEIN RENIDOR/3/8156.  
disease resistance: Leaf and stem rust, yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519358
origin: Mexico.  
cultivar: II-26478-32Y-7M-0Y.  
pedigree: INIA/23584,PC 20.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519359
origin: Chile.  
cultivar: T 12371-T-2P-5T.  
pedigree: CHM 73A.329/CHM 72A.508/2/TEMU 123-75, TEMU 152-82.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519360
origin: Mexico.  
cultivar: II-23959-13T-4M-3Y-0M.  
pedigree: CIANO SIB.2*INIA SIB,OM,PC 5.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519361
origin: Mexico.  
cultivar: II-23959-13T-1M-5Y-0M.  
pedigree: CIANO SIB/2*INIA SIB,PM 8.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519362
origin: Mexico.  
cultivar: 23959-13T.  
pedigree: CIANO SIB/2/LERMA ROJO/SONORA 64/3/LERMA ROJO 64/SONORA 64.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519363
origin: Mexico.  
cultivar: 23964-17T.  
pedigree: CIANO SIB/3/SONORA/2/TEZANOS PINTOS PRECOZ/YAQUI 54/4/TOBARI SIB.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519364
origin: Mexico.  
cultivar: II-24908-53M-2Y-1M-0Y.  
pedigree: TOBARI 66/CIANO SIB, PC 47.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 518864 to 519876-continued

PI 519365  
**origin:** Mexico.  
**cultivar:** II-24908-53M-1Y-4M-0Y.  
**pedigree:** TOBARi 66/CiANO SIB, PC 46.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519366  
**origin:** Mexico.  
**cultivar:** II-24941-23M-5Y-2M-0Y.  
**pedigree:** NOROESTE 66 SIB/CiANO SIB, PC 49.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519367  
**origin:** Mexico.  
**cultivar:** II-24970-29M-3Y-2M-0Y.  
**pedigree:** KLEIN RENDIDOR/2*SONORA 64/2/INIA SIB/3/CiANO SIB, PC 50.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519368  
**origin:** Mexico.  
**cultivar:** II-24975-8M-3Y-1M-OY.  
**pedigree:** SUPREMO 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54/3/SUPREMO 64/5*Y AQUI 50 ENANO /2/GABATO/4/CiANO SIB, PC 51.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519369  
**origin:** Mexico.  
**cultivar:** II-24989-7M-1Y-1M-OY.  
**pedigree:** CiANO/TOBARi 66, PC 52.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519370  
**origin:** Chile.  
**cultivar:** T 1184-T, TEMU 94-81.  
**pedigree:** TANORI F71/RUSTIQUE.  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519371  
**origin:** Mexico.  
**cultivar:** II-25952-3R-1M-OY.  
**pedigree:** SONORA 64/YAQUI 50E/2/GABOTO/3/CiANO, PC 37.  
**disease resistance:** Leaf rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519372  
**origin:** Mexico.  
**cultivar:** II-26527-1T-2M-OY.  
**pedigree:** CiANO SIB*2/CHRiS,PC 30.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519373  
**origin:** Syria.  
**cultivar:** CM 33682-L-1Y-1Y-4Y-100B-500Y-OM.  
**pedigree:** CEB 148/2/RON/CHANATE/3/BLUEBIRD/NORiN 67/4/HK38MA/3/477/REI /2/YAQUI/KENTANA/5/YECORA F70/6/TUCAN SIB.  
**disease resistance:** Stem and yellow (stripe) rust.  
**Spring Annual.**  
Cultivated.  
Seed.

PI 519374  
**origin:** Mexico.  
**cultivar:** II-26592-1T-17N-OY.  
**pedigree:** 23584/CiANO SIB.  
**disease resistance:** Stem and yellow (stripe) rust.  
**Spring Annual.**  
Cultivated.  
Seed.
PI 519375  
**origin:** Mexico.  
**cultivar:** II-27139-57M-OY.  
**pedigree:**  
SONARA 64/KLEIN RENDIDOR/3/CIA NO SIB/2/2*LERMA ROJO/SONORA 64,PC 9.  
**disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519376  
**origin:** Syria.  
**cultivar:** II-27139-30M-OY.  
**pedigree:**  
SONORA 64/KLEIN RENDIDOR/3/CIA NO SIB/2/2*LERMA ROJO 64/SONORA 64.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519377  
**origin:** Mexico.  
**cultivar:** PC-11.  
**pedigree:**  
SONORA 64/KLEIN RENDIDOR/3/CIA NO SIB/2/2*LERMA ROJO/SONORA 64.  
**disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519378  
**origin:** Mexico.  
**cultivar:** II-27220-44M-OY,PC 14.  
**pedigree:** INIA/CIA NO/2/CALIDAD.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 519379  
**origin:** Syria.  
**cultivar:** SWM 6525-1AP-OAP.  
**pedigree:** WA 4767/391.56D.81.14.53/1015.6410/3/W 22/4/ANAHUAC.  
**disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519380  
**origin:** Tunisia.  
**cultivar:** BD 1645,FAO 25.190.  
**pedigree:** TRITICUM DICOCCUM VARITY REICHENBACHII.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 519381  
**origin:** Syria.  
**cultivar:** CM 33682-L-1Y-4M-4Y-100B-500Y-OM.  
**pedigree:** CEB 148/2/RON/CHANATE/3/BLUEBIRD/NORIN 67/4/HK38MA/3/477/REI /2/YAQUI/KENTANA/5/YECORA F70/6/TUCAN SIB.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519382  
**origin:** Syria.  
**cultivar:** SWM 3142-3L-1AP-OAP-5K-OAP.  
**pedigree:** YAMHILL/ALONDRA SIB.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 519383  
**origin:** Syria.  
**cultivar:** L935-4L-1AP-OAP-2K-OAP.  
**pedigree:** ARIANO 66/BOBITO SIB.  
**disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519384  
**origin:** Syria.  
**cultivar:** L 489-1AP-OAP-4K-OAP.  
**pedigree:** P 106-19/2/SOTY/*3JUSTIN.  
**disease resistance:** Stem rust and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

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PI 518864 to 519876-continued

PI 519385  
origin: United States.  
cultivar: 68R25515.  
pedigree:  
JUSTIN/3/NORIN 10/BREVOR 14/2/5* CENTANA,6411.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519386  
origin: Syria.  
cultivar: SE 381-4S-1S-6S-OS.  
pedigree:  
KAVKAZ/4/CORRE CAMINOS/INIA/3/CIANO/EL GOUCHO/SONORA 64.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519387  
origin: Syria.  
pedigree: SWM 2984-1M-1Y-1M-2Y-OM-OMM.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519388  
origin: United States.  
pedigree:  
JUSTIN/2/CONLEY/ND 122.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519389  
origin: United States.  
cultivar: D 7958.  
pedigree: D 7507/VIC.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519390  
origin: United States.  
cultivar: ND 12-4.  
pedigree:  
POLK/ND 363.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519391  
origin: United States.  
cultivar: D 7983.  
pedigree: D 7463/D 74110.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519392  
origin: United States.  
cultivar: D 79103.  
pedigree: DT 427/VIC.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519393  
origin: United States.  
cultivar: D 79122.  
pedigree:  
EDMORE/WAKOOMA.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519394  
origin: United States.  
cultivar: D 79120.  
pedigree:  
EDMORE/WAKOOMA.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519395  
origin: United States.  
cultivar: D 793.  
pedigree:  
MONROE,D 7456/VIC.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519396  
origin: United States.  
cultivar: D 77200.  
pedigree: D 7224/CROSBY.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 518864 to 519876-continued


PI 518864 to 519876-continued


PI 519417  
**origin:** Ecuador.  
**cultivar:** II-13426-3E-4E-2E-1E-1E, FAO 25.118.  
**pedigree:** 1829-1681/150/2/BONZA/GABO.  
**disease resistance:** Yellow (stripe) rust and stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519418  
**origin:** Ecuador.  
**cultivar:** VI-36-2-30B-3T-2B-2T, FAO 25-119.  
**pedigree:** RIO NEGRE/2*BONZA/2/BONZA 63 SIB.  
**disease resistance:** Yellow (stripe) rust, stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519419  
**origin:** Ecuador.  
**cultivar:** III-100-14B-1T-2B, FAO 25.122.  
**pedigree:** SUPREMO/2/KENYA/YAQUI/3/FROCOR.  
**disease resistance:** Yellow (stripe) rust, stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519420  
**origin:** Ecuador.  
**cultivar:** VI 8-2-2-6B-2T-3B-4T, FAO 25.127.  
**pedigree:** FRONTANA/2/KENYA 58/NEWTHATCH/3/3*BONZA.  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519421  
**origin:** Ecuador.  
**cultivar:** VI.106-5B-2T-1B-1T-1B, FAO 25.137.  
**pedigree:** THATCHER/2*KENYA 58/2/BONZA.  
**disease resistance:** Stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519422  
**origin:** Algeria.  
**cultivar:** PUSA 4/ETIOLE DE CHOSY(SR 29).  
**disease resistance:** Stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519423  
**origin:** United States.  
**cultivar:** II-64-20.  
**pedigree:** CI 13654/II-60-105.  
**disease resistance:** Leaf rust.  
**Spring Annual. Cultivated. Seed.**

PI 519424  
**origin:** United States.  
**cultivar:** II-64-22.  
**pedigree:** CI 13777/II-60-105.  
**disease resistance:** Leaf and stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519425  
**origin:** United States.  
**cultivar:** ND 12-6.  
**pedigree:** WALDRON/TEZANOS PINTOS PRECOZ.  
**disease resistance:** Yellow (stripe) rust, leaf rust.  
**Spring Annual. Cultivated. Seed.**

PI 519426  
**origin:** United States.  
**cultivar:** ND 12-21.  
**pedigree:** JUSTIN/ND 264.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual. Cultivated. Seed.**

PI 519427  
**origin:** United States.  
**cultivar:** ND 16-120.  
**pedigree:** ND 441*3/II.54.45/2/FO.9/WISCONSIN 261.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual. Cultivated. Seed.**


PI 519438  origin: Mexico.  

PI 519439  origin: Mexico.  

PI 519440  origin: Mexico.  

PI 519441  origin: Mexico.  

PI 519442  origin: Mexico.  

PI 519443  origin: United States.  

PI 519444  origin: United States.  

PI 519445  origin: United States.  

PI 519446  origin: Peru.  

PI 518864 to 519876-continued

PI 519438 origin: Mexico.  

cultivar: 27572-20M-3Y-1M-OY.  
pedigree:  
JORI S/5/LD 357 ENANO/2/2*TEHUACAN/TREMES MOLLE  
ENANO/3/*2/ TEHUACAN/4/ZENATI/BONTEILLE/2/WELLS, SN 064.  
disease resistance: Yellow (stripe) rust.  Spring Annual.  
Cultivated.  Seed.

PI 519439 origin: Mexico.  

cultivar: 25624-7M-2Y-1M-3Y-1M-0Y.  
pedigree: TREMES MOLLE  
ENANO/2*TEHUACAN/5/ZENATI/BONTEILLE/2/WELLS/3/ BARRIGON  
YAQUI ENANO*2/4/TEHUACAN/6/ZENATI/BONTEILLE/2/ WELLS, SN 0169.  
disease resistance: Yellow (stripe) rust.  Spring Annual.  
Cultivated.  Seed.

PI 519440 origin: Mexico.  

cultivar: 28984-37Y-300M-500Y.  
pedigree: CANE S/2/TACUR TIPO  
ENANO/4*TEHUACAN*2/3/ZENATI/BONTEILLE/2/ WELLS, 28984-37Y-300M-500Y, CB 0123.  
disease resistance: Yellow (stripe) rust, stem rust.  Spring Annual.  
Cultivated.  Seed.

PI 519441 origin: Mexico.  

cultivar: 27106-23M-1Y-9M-OY-OM.  
pedigree: MENGAVI 8156(R)/2/JARAL  
disease resistance: Yellow (stripe) rust, stem rust.  

PI 519442 origin: Mexico.  

cultivar: 27175-1M-1Y-1M-OY-OM.  
pedigree: LERMA ROJO 64/SONORA 64/2/ 7 CERROS,PC 31.  
disease resistance: Yellow (stripe) rust.  Spring Annual.  
Cultivated.  Seed.

PI 519443 origin: United States.  

cultivar: BTSRWDR, (SR WDR-1).  
pedigree: BAART/WALDRON(MN SEL).  
disease resistance: Yellow (stripe) rust, powdery mildew, stem rust.  

PI 519444 origin: United States.  

cultivar: D 6714.  
pedigree: LANGDON*2/ST 464/2/LEEDS.  
Cultivated.  Seed.

PI 519445 origin: United States.  

cultivar: D 6821.  
pedigree: 61130/LEEDS.  
Cultivated.  Seed.

PI 519446 origin: Peru.  

cultivar: II-4290-1L-1L-3J-2CZ-2CZ.  
disease resistance: Yellow (stripe) rust.  Spring Annual.  
Cultivated.  Seed.
PI 519447  
**origin:** Peru.  
**cultivar:** II-1322-1J-1L-L-J-2CZ-2CZ.  
**pedigree:** II-53-525/3/FRONTANA/KENYA 58/NEWTHATCH/2/NORIN 10/BREVOR.  
**disease resistance:** Stem and leaf rust.  

PI 519448  
**origin:** Peru.  
**cultivar:** CH-7146-2J-2L-L-J-1CZ-3CZ.  
**pedigree:** FRONTANA/MCMURACHY/2/KENTANA/YAQUI/3/908/FRONTANA A8.  
**disease resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 519449  
**origin:** Peru.  
**cultivar:** II-4290-1L-1L-3J-1CZ-1CZ.  
**pedigree:** CHINESE/AGROPYRON ELONGATUM(PW 327)/3/FRONTANA/2/KENYA 58/ NEWTHATCH(II-50-18).  
**disease resistance:** Yellow stripe rust. Spring Annual.  
Cultivated. Seed.

PI 519450  
**origin:** Peru.  
**cultivar:** II-2801-3J-3L-L-J-5CZ-3CZ.  
**pedigree:** MARIE ESCOBAR/H 44/MARQUIS/2/KENYA 338.A.A.  
1A/2/FROCOR 316/ MCMURACHY/KENTANA/YAQUI 50.  
**disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual.  
Cultivated. Seed.

PI 519451  
**origin:** Peru.  
**cultivar:** CANHUIDE.  
**disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual.  
Cultivated. Seed.

PI 519452  
**origin:** Peru.  
**cultivar:** II-4290-1L-1L-2J-1CZ-2CZ.  
**pedigree:** CHINESE/AGROPYRON ELONGATUM(PW 327)/3/FRONTANA/KENYA 58/ NEWTHATCH(II-50-18).  
**disease resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 519453  
**origin:** Peru.  
**cultivar:** CUZQUENO.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519454  
**origin:** Peru.  
**cultivar:** II-4273-1L-2L-L-J-5CZ-1CZ.  
**pedigree:** FRONTANA/KENYA 58/NEWTHATCH(II-5-18)/3/908/FRONTANA (P 14-1H-6H-2H).  
**disease resistance:** Leaf rust. Spring Annual.  
Cultivated. Seed.

PI 519455  
**origin:** Peru.  
**cultivar:** II-2803-1J-1L-L-J-4CZ-1CZ.  
**pedigree:** MARIE ESCOBAR/H 44/MARQUIS/KENYA 338.A.A.  
1A/4/FROCOR 316/ MCMURACHY/KENTANA/YAQUI 50.  
**disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.
PI 518864 to 519876-continued

PI 519456  origin: Peru.  cultivar: CH-7146-2J-2L-L-J-6CZ-1CZ.  

KNOTT #2.  disease resistance: Yellow (stripe) rust, stem 

KNOTT #2M.  disease resistance: Stem and leaf rust.  


PI 519460  origin: Mexico.  cultivar: 22417-5M-1Y-3M-2Y.  pedigree:  NAPO 63/TABARI.  disease resistance: Yellow (stripe) rust 

PI 519461  origin: Mexico.  cultivar: 22433-3M-1Y-1M-2R.  pedigree:  JARAL S/2/TEZANOS PINTOS PRECOZ/NAINARI 60.  disease 
resistance: Stem and leaf rust.  Yellow (stripe) rust.  

PI 519462  origin: Peru.  cultivar: NARINO 59/3/FRON TANA/2/KENYA 58/NEWTHATC.  pedigree:  NARINO 59/3/FRON TANA/2/KENYA 
58/NEWTHATCH.  disease resistance: Yellow (stripe) rust 

Cultivated.  Seed.

PI 519464  origin: Zimbabwe.  cultivar: RUSAPE.  pedigree:  KAVKAZ/BUHO/2/KALANSONA/BLUEBIRD.  disease resistance:  


PI 519466  origin: Mexico.  cultivar: 22346-20M-5T-1M-2R.  pedigree:  SONORA 64A/2/TEZANOS PINTOS PRECOZ/YAQUI 54/3/SONORA 64/ 
YAQUI 50 ENANO/2/GABATO.  disease resistance: Stem rust.  


PI 518864 to 519876-continued


PI 519491 origin: Colombia.  
cultivar: VI 91.2.32.2T.1B.2T.  
disease resistance: Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 519492 origin: Colombia.  
cultivar: VI.8.2.2.2.7T.1T.2B.  

PI 519493 origin: Colombia.  
cultivar: 9791-3B-3T-1T-2B.  
pedigree: BONZA SIB/5/CI 12633/4/YAQUI/CARINA/3/MENTANA/2/SUPREMO/ GOTBARMU, KENYA SEL.C.  
Cultivated. Seed.

PI 519494 origin: Brazil.  
cultivar: PF 82200.  
pedigree: NOBRE*3/AGENT/2/NOBRE*3/ALONDRA.  

PI 519495 origin: Colombia.  
cultivar: II-18387-1.F.  

PI 519496 origin: Kenya.  
pedigree: CI 12632/3*CERES R.  

PI 519497 origin: Kenya.  
pedigree: CI 12632/3*KENYA 354 P.  

PI 519498 origin: Kenya.  
pedigree: CI 12632/3*RIO NEGRO.  

PI 519499 origin: Kenya.  
pedigree: TAMA/2/CI 12633/2*DEAD.  

PI 519500 origin: Kenya.  
pedigree: TAMA/2/CI 12633/2*DEAD.  

PI 519501 origin: Kenya.  
pedigree: MIDA/MCMURACHY/2/EXCHANGE/3/CERES R64.  

PI 519502 origin: Peru.  
cultivar: OLLANTA.  
PI 518864 to 519876-continued


PI 519515  
origin: United States.  
cultivar: ND 71-13-1059.  
pedigree: ND 487/FLETCHER.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519516  
origin: United States.  
cultivar: ND 71-13-1066.  
pedigree: II-54-30*2/2/WHEAT RYE TRANSLOCATION 238/5*JUSTIN/3/CIANO 67.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519517  
origin: United States.  
cultivar: ND 71-13-1211.  
pedigree: ND 303*3/2/WHEAT RYE TRANSLOCATION 238/5*THACTCHEER.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519518  
origin: United States.  
cultivar: ND 71-13-1221.  
pedigree: ND 480/2/POLK/WISCONSIN 261.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519519  
origin: United States.  
cultivar: ND 71-13-1246.  
pedigree: CIANO SIB/ERA.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519520  
origin: United States.  
cultivar: ND 71-14-1043.  
disease resistance: Leaf and stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519521  
origin: United States.  
cultivar: ND 71-14-1284.  
disease resistance: Leaf and stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519522  
origin: United States.  
cultivar: ND 71-14-1333.  
pedigree: ND 442 SIB *3/II-54-45.  
disease resistance: Leaf and stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519523  
origin: United States.  
cultivar: ND 71-14-752.  
pedigree: ND 442*3/TRANSEC.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519524  
origin: Chile.  
cultivar: A-3532-10P-1P-1P.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.


PI 519536  origin: Chile.  cultivar: A 4900-2P-4P-1P.  
pedigree: CENTRIFEN SIB/6/ORFIN/5/YAKTANA 54/2/NORIN
10/BREVOR/3/LERMA ROJO/4/MENFLO.  disease resistance:

PI 519537  origin: Chile.  cultivar: A 4766-51P-3P-2P.  
pedigree: PLATIFEN/5/RULOFEN/4/FRONTANA/2/KENYA
58/NEWTHATXCH/3/NORIN 10/BREVOR.  disease resistance:

PI 519538  origin: Chile.  cultivar: A 3909-1P-1P-1P.  
pedigree: SONORA 64/5/FRONTANA/3/KENYA 58/2/NORIN 10/BREVOR/4/GABO.
disease resistance: Leaf rust and yellow (stripe) rust.

PI 519539  origin: Chile.  cultivar: A 4827-1P-2P-5P.  
pedigree: HUELQUEN/4/MAYO/NORIN 10/2/YAKTANA 54/3/KENYA/LINCOYAN.
disease resistance: Leaf and stem rust.  Spring Annual.
Cultivated.  Seed.

PI 519540  origin: Uruguay.  cultivar: PREL/L 10/2/ESTANZUELA
TARARIRAS,LE 2081.  disease resistance: Leaf and stem

PI 519541  origin: Syria.  cultivar: CM 17904-B-3M-1Y-1Y-OSK.
pedigree: PELICANO SIB/RAFF SIB/2/GAVIOTA SIB/RTTE(WAHA).
disease resistance: Yellow (stripe) rust.  Spring Annual.
Cultivated.  Seed.

PI 519542  origin: Syria.  cultivar: SCOTER SIB,D 27625-OB.  
disease resistance: Yellow (stripe) rust.  Spring Annual.
Cultivated.  Seed.

PI 519543  origin: Syria.  cultivar: CD 24242-4Y-1M-1Y-0Y.
pedigree: GEDIZ SIB/BIT SIB.  disease resistance: Yellow

PI 519544  origin: Mexico.  cultivar: BRANT.  disease resistance:

PI 519545  origin: Mexico.  cultivar: CAJEME 71.  disease

PI 519546  origin: Mexico.  cultivar: CHAPALA 67.  disease
resistance: Yellow (stripe) rust.  Spring Annual.
Cultivated.  Seed.

PI 519547  origin: Syria.  cultivar: L 096-1AP-1AP-3AP-OAP.
pedigree: DWARM DURUM S 15/CRANE SIB/STORK SIB.  disease
resistance: Yellow (stripe) rust.  Spring Annual.
Cultivated.  Seed.
PI 518864 to 519876-continued

PI 519548  
origin: Mexico.  
cultivar: CRANE "S",  
D-23055-33M-1R-0Y-10Y-OM.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519549  
origin: Mexico.  
cultivar: CRANE "S".  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519550  
origin: Mexico.  
cultivar: CRANE "S",  
D-23055-33M-1R-3M-1R-3M-67Y.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519551  
origin: Syria.  
cultivar: L 038-4AP-3AP-2AP-OAP.  
pedigree: OVIACHIC 65/COPPEI/2/FLAMINGO SIB.  
disease resistance: Yellow (stripe) rust, leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519552  
origin: Mexico.  
cultivar: D-23055-56M-5Y-3M-5Y-3M-OY.  
pedigree: CRANE "S".  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519553  
origin: Kenya.  
cultivar: KENYA 4500-2.  
pedigree: HEBRAD SEL/5/WI 245/SUPRESA 51/3/*2FRCOR/FRTANA/YAQUI/4/ 
ANHINGA.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519554  
origin: Mexico.  
cultivar: PAK 20.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519555  
origin: Mexico.  
cultivar:  
26787-300Y-300M-302Y-2M-500Y-1B.  
pedigree: ROBIN 2.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519556  
origin: Syria.  
cultivar: 12889-1L-1AP-5AP-OAP.  
pedigree: OVIACHIC 65/COPPEI/2/FLAMINGO SIB.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519557  
origin: Syria.  
cultivar: CD 14817-3S-2AP-1AP-OAP.  
pedigree: FLAMINGO SIB/SINCAPE 9.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519558  
origin: Syria.  
cultivar: L 558-1L-2AP-2AP-OAP.  
pedigree: FLAMINGO SIB/JORI SIB/3/GULAR SIB/2/61-130/LEEDS.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519559  
origin: Syria.  
cultivar: L 002-1AP-1AP-1AP-OAP.  
pedigree: QUALIFEN/2/DWARF DURUM S 15/CRANE SIB.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 518864 to 519876-continued

PI 519560  origin: Mexico.  cultivar: 26591-1T-7M-0Y-115Y-OM.  

PI 519561  origin: Mexico.  cultivar: 26591-1T-7M-0Y-132Y-OM.  

PI 519562  origin: Mexico.  cultivar: 28339-17Y-1M-0Y-115Y-OM.  pedigrees:  

PI 519563  origin: Mexico.  cultivar: 30656-15M-1Y-1M-0Y-OM.  pedigrees:  

PI 519564  origin: Mexico.  cultivar: 30656-4T-1Y-1M-0Y.  pedigrees:  

PI 519565  origin: Mexico.  cultivar: 28567-15Y-4M-1Y-1M-0Y.  pedigrees:  

PI 519566  origin: Syria.  cultivar: CM 19742-D-5Y-1M-2Y-2Y.  

PI 519567  origin: Syria.  cultivar: CD 16913-B-2M-2M-3Y-4Y-OM.  pedigrees:  

PI 519568  origin: Syria.  cultivar: CD 19606-D-5Y-3M-1Y-1B-1Y.  pedigrees:  


PI 519571  
**origin:** Chile.  
**cultivar:** N-1255-2C-2C.  
**pedigree:** OROFEN /2/YAKTANA 54/3/NORIN 10/BREVO/4/LEMA ROJO/5/MENFLO /6/SPRING WHEAT 467/GABO/2/LEMA/3/VOGEL 9052.  
**disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.

PI 519572  
**origin:** Chile.  
**cultivar:** A-3705-1C-3C-1C-1C.  
**pedigree:** PLATIFEN/6/OROFEN/YAKTANA/2/NORIN 10/BREVO/5/LERMA ROJO/5/2* NEWTHATCH/MARROQUI/2/KENYA/METANA/3/FRENTHA(4-14).  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519573  
**origin:** Chile.  
**cultivar:** A-3705-6P-1P.  
**pedigree:** PLATIFEN/5/OROFEN*4/4/YAKTANA/2/NORIN 10/BREVO/3/LERMA ROJO.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519574  
**origin:** Chile.  
**cultivar:** A-3711-12P-1P-5P.  
**pedigree:** FRONTANA/2/KENYA 58/NEWTHATCH (II-50-18)/3/NORIN 10/BREVO/4 /BALILLA/5/YAQUI 54/6/PLATIFEN.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519575  
**origin:** Chile.  
**cultivar:** T-2478-40T-2T-1V.  
**pedigree:** SONORA 64/HEINES IV/5/KELENA 54/2/NORIN 10/BREVO 21-1C/3/ KENTANA 54B/4/NARINO.  
**disease resistance:** Leaf rust, yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519576  
**origin:** Chile.  
**cultivar:** T-2480-28T-4T-1V.  
**pedigree:** MCMURACHY/KENYA/2/YAQUI/3/FRENTHA/2/NEWTHATCH/MARROQUI/ CHAMPLAIN/6/PENJAMO 62/PONCHAU.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519577  
**origin:** Chile.  
**cultivar:** T-2488-8T-3T-2V.  
**pedigree:** KENTANA 54A/2/NORIN 10 BREVOR 21-1C/3/KENTANA 54B/4/NARINO 59/6/2* HEINES IV.  
**disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.

PI 519578  
**origin:** Chile.  
**cultivar:** T-2488-27T-4T-2V.  
**pedigree:** KENTANA 54A/2/NORIN 10 BREVOR 21-1C/3/KENTANA 54B/4/NARINO 59/5/2* HEINES IV.  
**disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.

PI 519579  
**origin:** Chile.  
**cultivar:** T-2494-14T-4T-1V.  
**pedigree:** PONCHEAU/5/2* KENTANA 54A/2/NORIN 10/BREVO 21-1C/3/KENTANA 54B/4/NARINO 59.  
**disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.
PI 519580  origin: Chile.  cultivar: CH-7790-12P-9P-1P-1P.  


PI 518864 to 519876-continued


PI 519613  
**origin**: Chile.  
**cultivar**: A4904-1P-1P-3P.  
**disease resistance**: Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519614  
**origin**: Chile.  
**cultivar**: A5503-8P-8P-2P.  
**pedigree**: TOQUIFEN SIB/2/II-50-25/THACTCHER.  
**disease resistance**: Yellow (stripe) rust, leaf rust.  
**Spring Annual. Cultivated. Seed.**

PI 519615  
**origin**: Chile.  
**cultivar**: II-23590-4P-1P-3P.  
**pedigree**: PITIC 62/II-53-526/3/2*/SONORA 64/2/TEZANOS PINTOS PRECOZ.  
**disease resistance**: Leaf rust.  
**Spring Annual. Cultivated. Seed.**

PI 519616  
**origin**: Chile.  
**cultivar**: A5183-15P-1P-2P.  
**disease resistance**: Stem and leaf rust. Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519617  
**origin**: Chile.  
**cultivar**: A5190-7P-1P-1P.  
**pedigree**: E3728/2/*3CAPELLI/GAZA/6/YAKTANA 54/2/NORIN 10/BREVOR/3/ TACUR TIPO 125/4/TEHUACAN/5/LAKOTA.  
**disease resistance**: Yellow (stripe) rust, stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519618  
**origin**: Chile.  
**cultivar**: A5210-16P-2P-1P.  
**pedigree**: MEXICO DWARF DURUM VARIETY 89/5/7508/4/YAKTANA 54/2/NORIN 10 /BREVOR/3/*BARRIGON YAUQUI.  
**disease resistance**: Yellow (stripe) rust, stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519619  
**origin**: Syria.  
**cultivar**: L 038-4AP-2AP-2AP-OAP.  
**pedigree**: OVIACHIC 65/COPPEI/2/FLAMINGO SIB.  
**disease resistance**: Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519620  
**origin**: Chile.  
**cultivar**: II-23062-1P-5P-1P.  
**disease resistance**: Stem and yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519621  
**origin**: Colombia.  
**cultivar**: VI-116-2-4B-1T-2B-1T.  
**pedigree**: YAUQUI 53/2*BONZA.  
**disease resistance**: Yellow (stripe) rust, stem rust.  
**Spring Annual. Cultivated. Seed.**
PI 518864 to 519876-continued


PI 519633  origin: United States.  
cultivar: MT 766.  
pedigree: B 52-91/2/KENYA FARMER/CENTANA/3/FORTUNA.  
Seed.

PI 519634  origin: Kenya.  
cultivar: 4743-C-3-A-S-A.  
pedigree: KENTANA/YAQUI/2/CI 12633/2*IDEAD/3/SOUTH AFRICA 43/4/ 
TRITICUM VULGARE/5/AEGILOPS OVATA.  
Seed.

PI 519635  origin: Kenya.  
cultivar: 4608T SAIA.  
pedigree: CHINCA/AEGILOPS ELONGATUM/2/REDMAN/3/CI 12633/2/CHINESE/ 
LIN CALEL.  
disease resistance: Stem and leaf rust.  

PI 519636  origin: Kenya.  
cultivar: 4266-R-1-B-2.  
pedigree: SOUTH AFRICA 43/ WISCON SUPREMO.  
disease resistance: Stem and leaf rust.  

PI 519637  origin: Kenya.  
cultivar: 5987-5-7-8.  
pedigree: KENYA 360 F-8-D-3/2/HOPE/TIMSTEIN.  

PI 519638  origin: Kenya.  
cultivar: 4792-K-1-B-4-A.  
pedigree: KENYA 802/2/CI 12633/2*IDEAD/3/TRITICUM 
VULGARE/2/AEGILOPS OVATA/GALA.  

PI 519639  origin: Syria.  
cultivar: L 038-4AP-3AP-1AP-OAP.  
pedigree: OVICHIC 65/COPPEI/2/FLAMINGO SIB.  
disease resistance: Yellow (stripe) rust.  

PI 519640  origin: Kenya.  
cultivar: 4301-F 4-B 4.  
pedigree: H 4416/CIENTO CINCUENTO.  
disease resistance: Stem rust.  

PI 519641  origin: Kenya.  
pedigree: CI 12632/2*CERES R 64.  
disease resistance: Stem rust.  

PI 519642  origin: Kenya.  
pedigree: CI 12632/3*CERES R.  
disease resistance: Stem rust.  

PI 519643  origin: Egypt.  
cultivar: L 1390-3238.  
pedigree: GIZA 139/GABO.  
disease resistance: Stem and leaf rust.  


<table>
<thead>
<tr>
<th>PI</th>
<th>Origin</th>
<th>Cultivar</th>
<th>Pedigree</th>
<th>Disease Resistance</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI 519658</td>
<td>United States</td>
<td>ND 511</td>
<td>ND 373<em>2/RL 4205/2/3</em>ND 373/GIZA HEGAZY AHMER.</td>
<td>Stem and leaf rust, yellow (stripe) rust.</td>
<td></td>
</tr>
<tr>
<td>PI 519665</td>
<td>Chile</td>
<td>CM 33203-K-9M-9Y-4M-1Y-1M-2Y-OM.</td>
<td>BOBWHITE SIB.</td>
<td>Stem and leaf rust, yellow (stripe) rust.</td>
<td></td>
</tr>
</tbody>
</table>
PI 519667 **origin:** United States. **cultivar:** D 7275. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 519668 **origin:** Mexico. **cultivar:** JORI 69. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 519669 **origin:** Mexico. **cultivar:** D-23055-33M-1R-3M-OY-67Y-OM. **pedigree:** CRANE SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519670 **origin:** Mexico. **cultivar:** 26591-1T-7M-OY-55Y-OM. **pedigree:** BLUEBIRD/INIA. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519671 **origin:** Chile. **cultivar:** 5-192-8P-2P-2P. **pedigree:** VILUFEN/RULOFEN. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 519672 **origin:** United States. **cultivar:** D 74110. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 519673 **origin:** Chile. **cultivar:** A5215-1P-2P-1P. **pedigree:** DIJON/BAFLA/2/II-50-18(F1)/3/(F1)II-50-18/2/VOGEL 101. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519674 **origin:** Chile. **cultivar:** A5248-1P-1P-1P. **pedigree:** HUELQUEN/TOQUIFEN SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519675 **origin:** Chile. **cultivar:** A5432-6P-1P-2P. **pedigree:** TOQUIFEN SIB/2/II-50-17/II-45-6. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519676 **origin:** Chile. **cultivar:** A5516-10P-1P-2P. **pedigree:** COLLAFEN SIB/4/NARINO 59 (4777)/3/RICCIO/2/YAQUI/KENTANA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519677 **origin:** Chile. **cultivar:** A5516-10P-3P-2P. **pedigree:** COLLAFEN SIB/4/NARINO 59 (4777)/3/RICCIO/2/YAQUI/KENTANA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519678 **origin:** Chile. **cultivar:** A5357-59P-1P-1P. **pedigree:** COLLAFEN/2/II-50-25/TECHUACAN. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
PI 518864 to 519876-continued

PI 519679  
origin: Chile.  
cultivar: A4430-20P-3P-1P.  
pedigree: HUELQUEN/4/FRONTANA/THATCHER/3/YAKTANA 54/2/NORIN 10/BREVOR.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519680  
origin: Chile.  
cultivar: A4806-63P-1P-2P.  
pedigree: PLATIFEN/4/II-50-72/3/YAKTANA 54/2/NORIN 10/BREVOR.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519681  
origin: Chile.  
cultivar: A4849-60P-7P-1P.  
pedigree: HUELQUEN/4/II-50-72/3/YAKTANA 54/2/NORIN 10/BREVOR.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519682  
origin: Chile.  
cultivar: A4900-57P-3P-1P.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519683  
origin: Chile.  
cultivar: A4920-52P-2P-2P.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519684  
origin: Chile.  
cultivar: T3037-5T-2V-2T.  
pedigree: CIANO F67/HEINE 110.  
disease resistance: Yellow (stripe rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519685  
origin: Chile.  
cultivar: T3039-6T-1V-3T.  
pedigree: TOBARI 66/SAMBO.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519686  
origin: Chile.  
cultivar: A12596-SE 11.  
pedigree: CIANO/2/SONORA 64/KLEIN RENDIDOR/3/8156(PENJAMO 62/2/GABOTO 55/SUPREMO)/4/MEXIFEN.  
disease resistance: Yellow stripe rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519687  
origin: United States.  
cultivar: MN 206264.  
pedigree: ERA SIB 2.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519688  
origin: United States.  
cultivar: WA 005949.  
pedigree: CIANO/2/SONORA 64/KLEIN RENDIDOR, 23584-102M.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 518864 to 519876-continued

PI 519689  
**origin:** United States.  
**cultivar:** M6810027.  
**pedigree:** NEW PUSA 63/2/TEZANOS PINTOS PRECOZ/SUPREMO 64/TEZANOS PINTOS PRECOZ/SUPREMO 64/LERMA ROJO 64/TEZANOS PINTOS PRECOZ/ANDES ENANO II-25510-14M-OY.  
**disease resistance:** Stem and leaf rust.  
**Annual. Cultivated. Seed.**

PI 519690  
**origin:** United States.  
**cultivar:** II-23997-4Y-100M-OY.  
**pedigree:** KLEIN PETISO/RAFAELA/2/8156R2,M6810362.  
**disease resistance:** Stem and leaf rust.  
**Annual. Cultivated. Seed.**

PI 519691  
**origin:** United States.  
**cultivar:** M6800152.  
**pedigree:** DURUM MUTANT 1203.  
**disease resistance:** Stem rust.  
**Annual. Cultivated. Seed.**

PI 519692  
**origin:** United States.  
**cultivar:** MD 000106.  
**pedigree:** BARRIGON YAQUI ENANO *2/TEHUACAN/2/STEWART 63/3/ZENATI/BOUTEILLE/2/WELLS/4/PLANT INTRODUCTION/TREMOS MOLLE ENANO/2* TEHUACAN/3/ZENATI/BOUTEILLE/2/WELLS, II-23055-56M-5Y-1M-5Y-1M-OY.  
**disease resistance:** Yellow (stripe) rust.  
**Annual. Cultivated. Seed.**

PI 519693  
**origin:** United States.  
**cultivar:** MD 000118.  
**disease resistance:** Stem and yellow (stripe) rust.  
**Annual. Cultivated. Seed.**

PI 519694  
**origin:** United States.  
**cultivar:** MT 7648.  
**pedigree:** ND 476/4/SHERIDAN/3/NORIN 10/BREVOR/2/4*CENTANA.  
**disease resistance:** Yellow (stripe) rust.  
**Annual. Cultivated. Seed.**

PI 519695  
**origin:** United States.  
**cultivar:** ND 521.  
**pedigree:** ND 441*2/AGENT/2/3*ND 441/TRITICUM TIMOPHEEVI DERIVATIVE/3/ND 441/WISCONSIN 261.  
**disease resistance:** Stem and leaf rust.  
**Annual. Cultivated. Seed.**

PI 519696  
**origin:** Australia.  
**cultivar:** K 235-18.  
**disease resistance:** Yellow (stripe) rust.  
**Annual. Cultivated. Seed.**

PI 519697  
**origin:** United States.  
**cultivar:** MN 6796.  
**pedigree:** II-61-6/ERA.  
**disease resistance:** Stem and leaf rust.  
**Annual. Cultivated. Seed.**

PI 519698  
**origin:** United States.  
**cultivar:** MN 67252.  
**pedigree:** TEZANOS PINTOS PRECOZ/SONORA 64/2/NAINORI/3/NORTENO 66.  
**disease resistance:** Leaf rust.  
**Annual. Cultivated. Seed.**

PI 519699  
**origin:** United States.  
**cultivar:** MN 6864.  
**disease resistance:** Stem and leaf rust.  
**Annual. Cultivated. Seed.**


PI 519712  origin: Kenya.  
pedigree: LAYAED/2/CI 12932/*KENYA 354P.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519713  origin: Lebanon.  
cultivar: OVIACHIE SIB.  
pedigree: FAO 14647.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519714  origin: Kenya.  
cultivar: INKOY.  
pedigree: HEBRAND SEL/WI 245/SUPRESA/3/2*FROCOR/2/FRONTANA/YAQUI/4/ 
AGUILERA, KENYA 4500 L6A4.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519715  origin: Kenya.  
pedigree: MENCO/2/WISCONSIN 245/SUPRESA 51/3/2*FROCOR/FRONTANA/2/YAQUI /4/AGUILERA.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519716  origin: India.  
cultivar: IUMILLO.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519717  origin: India.  
cultivar: COMBINATION IV.  
pedigree: (SR 11,SR TT).  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519718  origin: India.  
cultivar: TIMGALEN.  
pedigree: (SR 5M SR 8M SR TT).  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519719  origin: Ethiopia.  
cultivar: KENY 4958 A.2.H.I.B.  
pedigree: KENYA 4958 A.2.H.I.B.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519720  origin: Ethiopia.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519721  origin: Chile.  
cultivar: PLA 7281.  
pedigree: COLLAFEN/CHENAB 70,A 15983-44P-2P-2P-2P.  
disease resistance: Yellow stripe rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519722  origin: United States.  
cultivar: SD 2633.  
pedigree: WALDRON/ND 500.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519723  origin: United States.  
cultivar: SD 2636.  
pedigree: ND 496/OLAF.  
disease resistance: Leaf and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 519724  
origin: Mexico.  
cultivar: CM 5872-C-1Y-1M-3Y-OM.  
pedigree: CIANO/BLUE BIRD/4/CALIDAD/2/7 SIETE CERROS/LIB/INIA/3/ BLUEBIRD.  
disease resistance: Stem rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519725  
origin: Mexico.  
cultivar: CM 2182-5M-1Y-2M-3Y-OM.  
pedigree: SPARROW SIB,FRONTANA/MIDA/3/KENYA 117A/2/2*2COPIFEN/4/SONORA 64/2/KLEIN RENDIDOR/CIANO SIB/5/LERMA ROJO 64*2/SONORA 64.  
disease resistance: Leaf and stem rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519726  
origin: Mexico.  
cultivar: CM 8874-K-1M-OM.  
pedigree: HOPP/RON/2/KAL.  
disease resistance: Leaf rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519727  
origin: Mexico.  
cultivar: D 27582-2M-3Y-OM.  
pedigree: FLAMINGO SIB.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519728  
origin: Mexico.  
cultivar: D 27563-5M-2Y-2M-1Y-OM.  
pedigree: 21563/ANHINGA SIB.  
disease resistance: Yellow (stripe) and leaf rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519729  
origin: Chile.  
cultivar: PLA 14081.  
pedigree: SONORA 64/TEZANOS PINTOS PRECOZ/2/NAINARI 60/3/NURI 70.  
disease resistance: Yellow (stripe) and stem rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519730  
origin: Mexico.  
cultivar: D 27582-8M-6Y-3M-OY.  
pedigree: FLAMINGO SIB.  
disease resistance: Yellow (stripe) rust, leaf and stem rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519731  
origin: Mexico.  
cultivar: D 27624-7M-2Y-1M-3Y-1M-OY.  
pedigree: G11 SIB/GARZA SIB.  
disease resistance: Yellow (stripe) rust, leaf and stem rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519732  
origin: Mexico.  
cultivar: D 27676-10M-4Y-1M-OY.  
pedigree: BUCK BALCARCE/2/*2BARRIGON YAQUI/TECHUACAN (GANSO)/3/CRAINE PM 016.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519733  
origin: Mexico.  
cultivar: CM 470-1M-2Y-OM.  
pedigree: STORK SIB.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
 Cultivated.  
Seed.

PI 519734  
origin: Mexico.  
cultivar: D 27582-5M-2Y-5M-OY.  
pedigree: FLAMINGO SIB.  
disease resistance: Yellow (stripe) rust. Stem and leaf rust.  
Spring Annual.  
 Cultivated.  
Seed.


PI 518864 to 519876-continued

PI 519746  
**origin:** Mexico.  **cultivar:** 30409-44R-1M-3Y-OM.  **pedigree:** NARINO 59/2/PENJAMO/GABO/3/TEZANOS PINTOS PRECOZ/KNOTT#2/4/ CALIDAD.  **disease resistance:** Stem rust.  **disease resistance:** Stem rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519747  
**origin:** Mexico.  **cultivar:** 25819-20Y-5M-4Y-OM.  **pedigree:** CIANO/7 SIETE CERROS/2/CORRE CAMINOS/TOBARI 66.  **disease resistance:** Leaf rust and yellow (stripe) rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519748  
**origin:** Mexico.  **cultivar:** 27298-6M-0Y.  **pedigree:** LIB 64/INIA/2/INIA/BLUEBOY.  **disease resistance:** Stem rust and yellow (stripe) rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519749  
**origin:** Mexico.  **cultivar:** D31679-2L-OL.  **pedigree:** TREMS MOLLE ENANO*/2TEHUACAN/3/ZENATI/BONTEILLE/2/WELLS/4/ BARRIGON YAQUI ENANO*2/TEHUACAN/3/TACUR TIPO 125/2/2* TEHUACAN/F3 TUN/5/UYORI SIB.  **disease resistance:** Leaf rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519750  
**origin:** Mexico.  **cultivar:** D31761-2L-OL.  **pedigree:** BOOBY SIB/RD 119-2W-2Y.  **disease resistance:** Yellow (stripe) rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519751  
**origin:** Mexico.  **cultivar:** D 31729-2L-OL.  **pedigree:** TRITICUM DURHAM NAJADHAIA/4/TREMES MOLLE ENANO/2/ TEHUACAN /3/ZENATI/BONTEILLE/2/WELLS/5/TACUR TIPO 125/TEHUACAN/3/ ZENATI/BONTEILLE/2/WELLS.  **disease resistance:** Yellow (stripe) rust, and leaf rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519752  
**origin:** Mexico.  **cultivar:** D 31648-2L-OL.  **pedigree:** TRITICUM DURHAM (LEVE)/4/TREMES MOLLE/*TEHUACAN/3/ZENATI/ BONTEILLE/2/WELLS/5/BARRIGON YAQUI*2/TEHUACAN/3/ZENATI/ BONTEILLE/2/WELLS.  **disease resistance:** Yellow (stripe) rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519753  
**origin:** Mexico.  **cultivar:** D 31604-100L-OL.  **pedigree:** ANHINGA SIB/2/CHRIST DE CHILE.  **disease resistance:** Leaf rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519754  
**origin:** Mexico.  **cultivar:** D 31564-5L-OL.  **pedigree:** TORI SIB/ALBATROSS SIB.  **disease resistance:** Yellow (stripe) rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.

PI 519755  
**origin:** Mexico.  **cultivar:** D 31544-1L-OL.  **pedigree:** TORI SIB/BARRIGON YAQUI ENANO*/5TEHUACAN.  **disease resistance:** Yellow (stripe) rust.  **disease resistance:** Spring Annual.  **disease resistance:** Cultivated.  **disease resistance:** Seed.
PI 518864 to 519876-continued

PI 519756  
origin: United States.  
cultivar: D 763.  
pedigree: D 7233/EDMORE.  
disease resistance: Yellow (stripe) rust and stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519757  
origin: Mexico.  
cultivar: D 28981-14Y-8M-500Y.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519758  
origin: United States.  
cultivar: D 764.  
pedigree: D 7233/EDMORE.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519759  
origin: Brazil.  
cultivar: D 73121.  
pedigree: D 68112/WARD.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519760  
origin: Sweden.  
cultivar: TIMMO.  
disease resistance: Powdery mildew.  
Spring Annual.  
Cultivated.  
Seed.

PI 519761  
origin: Mexico.  
cultivar: D 26842-21Y-3M-OY.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519762  
origin: Chile.  
cultivar: PLA 15981.  
pedigree: COLLAFEN/CHENAB.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519763  
origin: Chile.  
cultivar: PLA 23679.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519764  
origin: Chile.  
cultivar: Q 10.007.  
pedigree: ANDIFEN/INIA.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519765  
origin: United States.  
cultivar: D 71111.  
pedigree: 6580/WARD.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519766  
origin: Chile.  
cultivar: Q 10.092.  
pedigree: SIPA/INIA.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519767  
origin: United States.  
cultivar: MN 6916.  
pedigree: II-62-68/TOBARTI 66/2/NORIN 66/ERA.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 519768  
**origin:** United States.  **cultivar:** MN 69124.  **pedigree:** II-62-68/TOBARTI 66/2/FLETCHER/CIANO 67.  **disease resistance:** Stem and leaf rust.  Spring Annual.  Cultivated.  Seed.

PI 519769  
**origin:** United States.  **cultivar:** MN 7083.  **pedigree:** FLETCHER/NORIN 66/2/II-64-33.  **disease resistance:** Leaf rust.  Spring Annual.  Cultivated.  Seed.

PI 519770  
**origin:** United States.  **cultivar:** MN 7086.  **pedigree:** ERA/II-64-33.  **disease resistance:** Leaf rust.  Spring Annual.  Cultivated.  Seed.

PI 519771  
**origin:** United States.  **cultivar:** MN 70113.  **pedigree:** POLK/TOBARI 66/2/FLETCHER.  **disease resistance:** Stem and leaf rust.  Spring Annual.  Cultivated.  Seed.

PI 519772  
**origin:** United States.  **cultivar:** MN 70121.  **pedigree:** POLK/TOBARI 66/2/NORIN MN 70121/66/ERA.  **disease resistance:** Stem rust.  Spring Annual.  Cultivated.  Seed.

PI 519773  
**origin:** United States.  **cultivar:** MN 70175.  **pedigree:** WALDRON/ERA.  **disease resistance:** Leaf rust.  Spring Annual.  Cultivated.  Seed.

PI 519774  
**origin:** United States.  **cultivar:** MN 70180.  **pedigree:** ERA/CRIS MUTANT (ECM 403).  **disease resistance:** Stem and leaf rust.  Spring Annual.  Cultivated.  Seed.

PI 519775  
**origin:** Chile.  **cultivar:** Q 10.090.  **pedigree:** ONDA/INIA.  **disease resistance:** Stem and yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 519776  
**origin:** Chile.  **cultivar:** Q 10.129.  **pedigree:** BONZA/BLE TENDRE/2/PI 178383/WA 4765/3/WW 15(F1)/4/YMH/SIETE CERROS, SWO 74037-J-1C-1C-1C-1C.  **disease resistance:** Yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 519777  
**origin:** United States.  **cultivar:** D 7158.  **pedigree:** 6568/6148.  **disease resistance:** Stem rust.  Spring Annual.  Cultivated.  Seed.

PI 519778  
**origin:** Chile.  **cultivar:** Q 10.121.  **pedigree:** ANDIFEN/HUELQUEN, QP 348-1C-1C-1C-1C.  **disease resistance:** Leaf and yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 519779  
**origin:** Chile.  **cultivar:** Q 10.120.  **pedigree:** ANDIFEN/YAFEN, QP 347-2C-1C-1C-1C.  **disease resistance:** Stem and yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.


PI 518864 to 519876-continued

PI 519792  
origin: Chile.  
cultivar: Q 10.119.  
pedigree:  
NAOFEN/2/21943/CHAPINGO 53/3/YAQUI 50, QP  
330-1C-1C-1C-1C.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519793  
origin: Uruguay.  
pedigree:  
FRONTANA/2/KENYA 58/NEWTHATCH/3/NORIN 10/BREVOR/4/  
MULTIPICACION 14.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519794  
origin: Uruguay.  
cultivar: 427.  
pedigree:  
PRELUDIO/ZORZAL.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519795  
origin: Uruguay.  
cultivar: 435.  
pedigree:  
MULTIPICACION 14/ZORZAL.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519796  
origin: Chile.  
cultivar: Q 10.117.  
pedigree:  
HYSLOP/SIETE CERROS/2/EMU SIB SWM 66 28-2Y-1C-1C-1C.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519797  
origin: Brazil.  
cultivar: PF 79790.  
pedigree: PF 72640/PF 7326/2/PF 7065/ALONDRA SIB.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519798  
origin: Brazil.  
cultivar: PF 79782.  
pedigree: IAS 63/ALONDRA SIB/2/GABOTO/LOGOA VERMELHA.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519799  
origin: United States.  
cultivar: SDP 2254.  
pedigree: OAF/ND 487.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519800  
origin: United States.  
cultivar: SDP 2025.  
pedigree: OAF/ND 500.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519801  
origin: Uruguay.  
cultivar: LE 2099.  
pedigree:  
ESTANZUALA ZORZAL/2/ND 373*3/GIZA 74003.  
disease resistance: Leaf and stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519802  
origin: United States.  
cultivar: SDP 1.  
pedigree: OAF/2/CIANO/CHRIS.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519803  
origin: United States.  
cultivar: SDP 2014.  
pedigree: W 271/(4) WALDRON/AD.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.


PI 518864 to 519876-continued

PI 519816  
origin: Mexico.  
cultivar: TORIM 73.  
disease resistance: Leaf and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519817  
origin: Mexico.  
cultivar: YOREME 74.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519818  
origin: Mexico.  
cultivar: RAHUM.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519819  
origin: Mexico.  
cultivar: CM 31630-I-1Y-2M-5Y-OM.  
pedigree: PEWEE SIB.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519820  
origin: Australia.  
cultivar: 2M(2B)-1-5.  
pedigree: 21 DAS.  
disease resistance: Yellow (stripe) rust and powdery mildew.  
Spring Annual.  
Cultivated.  
Seed.

PI 519821  
origin: Australia.  
cultivar: DAS 21.  
pedigree: 2M(2D)-1-3.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519822  
origin: United States.  
cultivar: ND 531.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519823  
origin: United States.  
cultivar: ND 536.  
pedigree: OLAF/ND 496.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519824  
origin: United States.  
cultivar: D 7266.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519825  
origin: United States.  
cultivar: D 7233.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519826  
origin: United States.  
cultivar: ND 535.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519827  
origin: United States.  
cultivar: ND 539.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 518864 to 519876-continued

PI 519828  origin: United States.  cultivar: FA 12-144.  pedigree:
ND 494/4/WALDRON/3/PEMBINA/AGENT/2/SUWON 92.  disease

PI 519829  origin: United States.  cultivar: FA 12-153.  pedigree:

PI 519830  origin: United States.  cultivar: FA 13-1028.  pedigree:

PI 519831  origin: Uruguay.  cultivar: ESTANZUELA DORADO.  pedigree:
ESTANZUELA TARARIRAS/3/TOBARI/2/KLEIN PETISO/RAFAELA MAG.

PI 519832  origin: Lebanon.  cultivar: TRIGO 48.  disease

PI 519833  origin: Canada.  cultivar: K 445.  pedigree:
HOPPS/MARQUILLO/2/BONZA/HOPE.  disease resistance: Stem

PI 519834  origin: Canada.  cultivar: K'512.  pedigree:
THATCHER/BONZA/2/HOPPS/HOPE.  disease resistance: Stem

PI 519835  origin: Canada.  cultivar: K 553.  pedigree:
THATCHER/BONZA/2/HOPPS/HOPE.  disease resistance: Stem

PI 519836  origin: Mexico.  cultivar: 26931-1M-1Y-1M-1Y-OM.
pedigree: CIANO SIB/OLESEN.  disease resistance: Stem

PI 519837  origin: Ecuador.  cultivar: SWM 4249-1Y-6M-5Y-OM.
pedigree: HY SIB/PAVON SIB.  disease resistance: Yellow

PI 519838  origin: Ecuador.  cultivar: INIAP/ALTAR.  disease

PI 519839  origin: Ecuador.  cultivar: E-II-74-11671-3C-2C-10E.
pedigree: ZOPILOTE/*3DESECONOCIDO.  disease resistance:


PI 518864 to 519876-continued

PI 519852 origin: Mexico.  
cultivar: II-34179-1Y-1M-7Y-OM.  
pedigree: INIA/BLUEBIRD/2/RED RIVER 68.  

PI 519853 origin: Mexico.  
cultivar: 1959.  

PI 519854 origin: Mexico.  
cultivar: 26978-2M-300Y-300M.  
pedigree: PENJAMO 62/WHEAT RYE TRANS LOCATION/2/CALIDAD 22429.  

PI 519855 origin: Mexico.  
cultivar: 30626-0A.  
pedigree: KLEIN PETISO/RAFAELA/2/PENJAMO 62/3/CIANO/4/SAMACÁ.  

PI 519856 origin: Mexico.  
cultivar: CM 28235-2Y-6Y-OM.  
pedigree: VIREO SIB.  
disease resistance: Yellow (stripe) rust.  

PI 519857 origin: United States.  
cultivar: S 547.  
pedigree: BONANZA/WO 1809/2/CENTANA.  

PI 519858 origin: United States.  
cultivar: S 546.  
pedigree: BONANZA/WO 1809/2/LEMHI.  

PI 519859 origin: Mexico.  
cultivar: D 25609-2M-1Y-1M.  
pedigree: PELICANO.  

PI 519860 origin: Mexico.  
cultivar: 31724-33M-6Y-OM.  
pedigree: CRANE SIB/PELICANO SIB.  
disease resistance: Yellow (stripe) rust.  

PI 519861 origin: United States.  
cultivar: S 542.  
pedigree: BONANZA/WO 1809/2/BONANZA/1812.  

PI 519862 origin: Mexico.  
cultivar: CB 047.  
pedigree: DURUM DWARF S 15/CRANE SIB.  

PI 519863 origin: Mexico.  
cultivar: CB 072.  
pedigree: PINGUINO SIB.  
PI 519864

PI 519865

PI 519866

PI 519867

PI 519868

PI 519869

PI 519870

PI 519871

PI 519872

PI 519873

PI 519874
PI 519864 to 519876-continued

PI 519875  
**origin:** Mexico.  **cultivar:** CM 30136-3Y-1Y-OM.  **pedigree:** TITMOUSE SIB.  **disease resistance:** Yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 519876  
**origin:** Mexico.  **cultivar:** YOREME TEHUACAN 75.  **disease resistance:** Stem rust.  Spring Annual.  Cultivated.  Seed.

PI 519877.  X Triticosecale sp.  POACEAE Triticale  
**Donated by:** Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States.  **remarks:** Materials received through International Rust and Powdery Mildew Nursery Program.  Received October 1987.

**origin:** Mexico.  **cultivar:** BACUM.  **disease resistance:** Stem rust.  Spring Annual.  Cultivated.  Seed.

PI 519878.  Triticum aestivum L.  POACEAE Common wheat  
**Donated by:** Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States.  **remarks:** Materials received through International Rust and Powdery Mildew Nursery Program.  Received October 1987.

**origin:** Mexico.  **cultivar:** TANAGER SIB.  **pedigree:** CM 30697-2M-13Y-7M-OY.  **disease resistance:** Stem rust.  Spring Annual.  Cultivated.  Seed.

PI 519879.  X Triticosecale sp.  POACEAE Triticale  
**Donated by:** Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States.  **remarks:** Materials received through International Rust and Powdery Mildew Nursery Program.  Received October 1987.

**origin:** Mexico.  **cultivar:** RAHUM SIB.  **disease resistance:** Stem rust.  Spring Annual.  Cultivated.  Seed.

PI 519880 to 520121.  Triticum aestivum L.  POACEAE Common wheat  
**Donated by:** Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States.  **remarks:** Materials received through International Rust and Powdery Mildew Nursery Program.  Received October 1987.
PI 519880 to 520121-continued

PI 519880
origin: United States.
cultivar: MN 81330.

PI 519881
origin: United States.
cultivar: MN 81319.

PI 519882
origin: Ecuador.
cultivar: CM 33205-B-LLM-6Y-OM.

PI 519883
origin: Mexico.

PI 519884
origin: Mexico.

PI 519885
origin: Mexico.

PI 519886
origin: Mexico.

PI 519887
origin: Mexico.

PI 519888
origin: Mexico.

PI 519889
origin: Mexico.
PI 519880 to 520121-continued


PI 519901 origin: South Africa. *cultivar*: W 5844-6-M-5-LM. 
pedigree: TIMGALEN/RAVEN/2/SKEMER, W 104. disease 

PI 519902 origin: South Africa. *cultivar*: W 5844-6-M-6-LM. 
pedigree: TIMGALEN/RAVEN/2/SKEMER, W 105. disease 

PI 519903 origin: South Africa. *cultivar*: W 5844-6-M-7-LM. 
pedigree: TIMGALEN/RAVEN/2/SKEMER, W 106. disease 

PI 519904 origin: South Africa. *cultivar*: BAJIO/INIA/2/E 2163 (TIMGALEN). 
pedigree: W 5865-2-M-3-LM, W 107. disease 

pedigree: NORESTE/9/FRONTANA/KENYA 58/2/NEWTHATCH/3/NORIN 

pedigree: TRIUMPH/CI 13523(AGENT)/9/FRONTANA/KENYA 58/2/NEWTHATCH/3/ NORIN 10/BREVOR 1/4/908/FRONTANA/5/KENTANA 54B/6/FLEMEKS/7/ 

pedigree: TRIUMPH/CI 13523(AGENT)/2/SKEMER. disease 

PI 519908 origin: South Africa. *cultivar*: W 5672-3-M-6-TM. 
pedigree: TEZANOS PINTOS PRECOZ/SONORA 
64A/2/MUOD/AZTECA, W 113. disease resistance: Stem and 

PI 519909 origin: South Africa. *cultivar*: W 5672-3-M-11-TM. 
pedigree: TEZANOS PINTOS PRECOZ/SONORA 64A/2/MUOD/AZTECA, 
W 114. disease resistance: Stem and yellow (stripe) 
PI 519910  origin: South Africa.  
cultivar: W 5672-3-M-11-LM.  
pedigree: SONORA 64A/TEZANOS PINTOS PRECOZ/2/MUOD/AZTECA, W 118.  
Cultivated.  Seed.

PI 519911  origin: South Africa.  
cultivar: W 5864-4-M-2-LM.  
pedigree: TIMGALEN/2/BAJIO/KASTEEL, W 131.  
Cultivated.  Seed.

PI 519912  origin: South Africa.  
cultivar: W 5885-2-M-1-LM.  
Cultivated.  Seed.

PI 519913  origin: South Africa.  
cultivar: W 5738-A2-M-14-TM.  
pedigree: SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54/3/HEEMRAAD/4/TOBARI/2/EL GAUCHO/SONORA 64, W 137.  
Cultivated.  Seed.

PI 519914  origin: Kenya.  
cultivar: KENYA ETOILE DE CHOISY B.  
disease resistance: Yellow (stripe) rust. Spring Annual.  
Cultivated.  Seed.

PI 519915  origin: United States.  
cultivar: SD 2354.  
pedigree: OLAF/WI 261.  
disease resistance: Leaf rust. Spring Annual.  
Cultivated.  Seed.

PI 519916  origin: United States.  
cultivar: SD 2355.  
pedigree: OLAF/NEEPAWA.  
disease resistance: Leaf rust. Spring Annual.  
Cultivated.  Seed.

PI 519917  origin: United States.  
cultivar: PEDIGREE UNKNOWN.  
disease resistance: Leaf rust. Spring Annual.  
Cultivated.  Seed.

PI 519918  origin: United States.  
cultivar: SD 2350.  
pedigree: KIATL/2/INIABB/BARLETA BENVENUTO.  
Cultivated.  Seed.

PI 519919  origin: United States.  
cultivar: SD 2640.  
pedigree: OLAF/2/2*CIONA 67/CHRIS.  
disease resistance: Leaf and yellow (stripe) rust. Spring Annual.  
Cultivated.  Seed.
PI 519920  
origin: South Africa.  
cultivar: W 5710-10-M-1-LM.  
pedigree: EL GAUCHO/SONORA 64/4/TIMGALEN/SONORA 64/TEZANOS PINTOS PRECOZ/NAINARI 60,W 85.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519921  
origin: South Africa.  
cultivar: W 5710-10-M-4-LM.  
pedigree: EL GAUCHO/SONORA 64/4/TIMGALEN/SONORA 64/TEZANOS PINTOS PRECOZ/NAINARI 60,W 86.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519922  
origin: South Africa.  
cultivar: W 5865-4-M-3-TM.  
pedigree: TIMGALEN/2/BAJIO/INIA,W 138.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519923  
origin: South Africa.  
cultivar: C 1191-12E-1L.  
pedigree: JARAL SIB/2/BLUEBOY/CIANO,W 141.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519924  
origin: South Africa.  
cultivar: C 1259-7E-2L.  
pedigree: TOBARI 66/3/KLEIN PETISO/RAFAELO/2/BLUEBOY,W 144.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519925  
origin: South Africa.  
cultivar: C 1356-17E-2L.  
pedigree: CIANO/BLUEBOY/3/SONORA 64/YAQUI 50/2/GABOTO/INIA,W 146.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519926  
origin: South Africa.  
cultivar: 6992-M-2-WM.  
pedigree: DROMEDARIS/3/SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54,W 150.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519927  
origin: Kenya.  
cultivar: SALMAYO(3RD RDISN).  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519928  
origin: Kenya.  
cultivar: KENYA 4527-L45-D1.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519929  
origin: Kenya.  
cultivar: KENYA 4792 K-1B-4A.  
pedigree: KENYA 802/CI 12633/3/DEAD*2/2/TVALY/AEGILOPS OVATA/2/GATA.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 519880 to 520121-continued

PI 519930 origin: Yugoslavia.  
cultivar: ZG 2783-71.  
disease resistance: Stem and yellow (stripe) rust.  

PI 519931 origin: Kenya.  
disease resistance: Stem and yellow (stripe) rust.  

PI 519932 origin: Nepal.  
cultivar: NS 21.  
disease resistance: Stem and yellow (stripe) rust.  

PI 519933 origin: Tunisia.  
cultivar: D 68-1-39A-7A.  
disease resistance: Stem rust.  

PI 519934 origin: United States.  
disease resistance: Yellow (stripe) rust.  

PI 519935 origin: Iran.  
cultivar: III-25-2-13B-2T-1T.  
pedigree: LEE/2/MARINGA/*2BONZA.  
disease resistance: Stem and yellow (stripe) rust.  

PI 519936 origin: Kenya.  
cultivar: 6295-4A.  
pedigree: ROMANY/2/GABO/GAMENYA 1A2C.  
disease resistance: Stem rust.  

PI 519937 origin: Mexico.  
cultivar: CM 33090-7-4M-2Y-5M-OY.  
pedigree: CHAT SIB.  
disease resistance: Yellow (stripe) rust.  

PI 519938 origin: Kenya.  
cultivar: KENYA 4500.  
pedigree: WI 245/SAUPRESA/2/PROCOR/FRONTANA/3/2*YAQUI/AGUILERA.  
disease resistance: Yellow (stripe) rust and stem rust.  

PI 519939 origin: United States.  
cultivar: MN 81240.  
disease resistance: Stem and leaf rust.  

PI 519940 origin: United States.  
cultivar: MN 81137.  
pedigree: MN 73110/MN 7439.  
disease resistance: Stem and leaf rust.  

PI 519941 origin: Egypt.  
cultivar: E 4843-3.  
pedigree: SUPREMO 227/SONORA 64.  
disease resistance: Stem and yellow (stripe) rust.  

PI 519942 origin: Lebanon.  
cultivar: P3-6L-OL.  
pedigree: PRETO AMARELO/OWIACHIC.  
disease resistance: Yellow (stripe) rust.  

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PI 519943  
**origin:** Kenya.  
**cultivar:** PB-1970.  
**pedigree:**  
FRONTELEZA/HEBRAD/3/PEWTER/ALLARD 52-1-3-55-4(CI 12633) /IDEAD/4/KENYA 4853-G3A.  
**disease resistance:** Yellow (stripe) rust and stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519944  
**origin:** Chile.  
**cultivar:** A 3585-3P-1P-1P.  
**pedigree:**  
FRONTANA/MCMURACHY/2/KENTANA/YAQUI/3/2*4777/4/Frontana/ KENYA 58/NORIN 10/BREVOR.  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519945  
**origin:** Chile.  
**cultivar:** A3532-10P-1P-3P.  
**pedigree:**  
NEWTHATCH/MARROQUI/2/KENYA/MENTANA(908)/3/Frontana*2/4/41/ 0/ YAKTANA 54 Enano/*2C 14/5/OROFEN/7/TIMSTEIN/CHINESE 166/ KENYA FARMER/LERMA/NEWTHATCH/MARROQUI*2/MARIA ESCOBAR.  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519946  
**origin:** Kenya.  
**cultivar:** KENYA 4539-L30-E4.  
**disease resistance:** Yellow (stripe) rust and stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519947  
**origin:** Mexico.  
**cultivar:** CM 33483-C-7M-1Y-OM.  
**pedigree:** JUNCO SIB.  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519948  
**origin:** Morocco.  
**cultivar:** NOVA PRATA.  
**disease resistance:** Powdery mildew.  
**Spring Annual. Cultivated. Seed.**

PI 519949  
**origin:** Morocco.  
**cultivar:** VI-112-2-2-7T-2B-2T.  
**pedigree:** ALLARD 52-1-3-55-4(CI 12633,WI 245)/3 BONZA.  
**disease resistance:** Yellow (stripe) rust and stem rust.  
**Spring Annual. Cultivated. Seed.**

PI 519950  
**origin:** Iran.  
**cultivar:** M 1169-1-49-164.  
**pedigree:**  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**

PI 519951  
**origin:** Chile.  
**cultivar:** A 3809-8P-2P-2P.  
**pedigree:**  
FROCOR/3/MCMURACHY/2/KENTANA/*2YAQUI (4777)*2/4/Frontana/ KENYA 58/2/NEWTHATCH/3/NORIN 10/BREVOR/5/RULOFEN.  
**disease resistance:** Leaf rust.  
**Spring Annual. Cultivated. Seed.**

PI 519952  
**origin:** Chile.  
**cultivar:** CODE 70-137.  
**pedigree:**  
150/3/FROCOR/KENYA 350-AD-9C2/2/2*GABO.  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual. Cultivated. Seed.**
PI 519953  
origin: Tunisia.  
cultivar: 39073-2TU-1MB-OBJ.  
pedigree: CORRE CAMINOS/INIA SIB/2/NARINO 59/OLESEN.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519954  
origin: Morocco.  
pedigree: SOUTH AFRICA 43/WISCONSIN SUPREMO.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519955  
origin: Tunisia.  
cultivar: ARIANA 66.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519956  
origin: Turkey.  
cultivar: POTAM/CARDENAL.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519957  
origin: India.  
cultivar: HD 2169.  
disease resistance: Yellow (stripe) rust and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519958  
origin: India.  
cultivar: HD 2172.  
disease resistance: Yellow (stripe) rust and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519959  
origin: United States.  
cultivar: MN 81101.  
pedigree: MN 74122/MN 7461.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519960  
origin: Mexico.  
cultivar: CM 2182-5M-1Y-3M-1Y-OM-OBK.  
pedigree: SPARROW SIB.  
disease resistance: Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519961  
origin: Argentina.  
cultivar: YAFEN.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519962  
origin: Afghanistan.  
cultivar: AFGHANISTAN 1-48-448.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519963  
origin: Ethiopia.  
cultivar: CONDORE 839.  
disease resistance: Yellow (stripe) rust and stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519964  
origin: Soviet Union.  
cultivar: VALKI 84.  
disease resistance: Yellow (stripe) rust and stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 519965  
origin: Ethiopia.  
cultivar: KASUK.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 519880 to 520121-continued


PI 519991  
**origin:** Mexico.  
**cultivar:** M 1441-1-1-49-293.  
**pedigree:** SONORA 64/TEZANOS PINTOS PRECOZ/3/YAQUI 50/CORRE CAMINOS/NOROESTE.  
**disease resistance:** Yellow (stripe) rust.  

PI 519992  
**origin:** Mexico.  
**cultivar:** M 1234-1-49-2.  
**pedigree:** 8156/C 271/2/TEZANOS PINTOS PRECOZ/SONORA 64.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519993  
**origin:** Mexico.  
**cultivar:** E 67-2827-1F-1C-OC.  
**pedigree:** KENYA 133/2/BLE TENDRE/3/YAQUI ENANO/*3FROCOR/6/SALLES/2/MCMURACHY/3/MAYO/MIDA/4/KENYA 117A/FRONTANA/5/FRONTANA/2/KENYA 58/NEWTHATCH.  
**disease resistance:** Leaf and yellow (stripe) rust. Powdery mildew. Spring Annual. Cultivated. Seed.

PI 519994  
**origin:** Mexico.  
**cultivar:** NADADORES 63/T 238-1-5-8-17-10.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 519995  
**origin:** Mexico.  
**cultivar:** J 9205-67.  
**pedigree:** CARAZINHO/KENYA FARMER.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519996  
**origin:** Mexico.  
**cultivar:** 30656-5M-1Y-1M-1Y-1M-OY.  
**pedigree:** INIA SIB/NAPO 63/2/2*CALIDAD.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519997  
**origin:** Mexico.  
**cultivar:** CM 8874-K-1M-1Y-OM-(1-365Y)-(1-200B).  
**pedigree:** HORK SIB.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519998  
**origin:** Mexico.  
**cultivar:** NACOZARI SIB,CM 5287-J-1Y-2M-1Y-1M-OY-.  
**pedigree:** (1-144B).  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519999  
**origin:** Mexico.  
**cultivar:** WOODPECKER SIB,CM 15856-6M-5Y-3M-OY-.  
**pedigree:** (1-144B).  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520000  
**origin:** Mexico.  
**cultivar:** CHOLI SIB,II-21512-1P-1P-3P.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520001  
**origin:** Mexico.  
**cultivar:** BROCHIS SIB,CM 5872-C-1Y-1M-1Y-OY.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
PI 519880 to 520121-continued

PI 520002 origin: Mexico. cultivar: MONCHO SIB,CM

PI 520003 origin: Mexico. cultivar: PAVON 76 SIB,CM

PI 520004 origin: Mexico. cultivar: CHIROCA SIB,CM

PI 520005 origin: Mexico. cultivar: MAGPIE SIB,CM

PI 520006 origin: Chile. cultivar: T 4371-28T-1T-2T. pedigree:

PI 520007 origin: Chile. cultivar: T 4646-14T-1V-1T. pedigree:

PI 520008 origin: Chile. cultivar: T 5024-15T-3V-1T. pedigree:

PI 520009 origin: Chile. cultivar: T 5037-6T-2V-4T. pedigree:

PI 520010 origin: Chile. cultivar: T 5059-4T-1V-1T. pedigree:
VILMORIN 29*2/2/NORIN 10/BREVOR/4/INIA SIB/3/SONORA 64/2/
TEZANOS PINTOS PRECOZ/YAQUI 54. disease resistance:

PI 520011 origin: Mexico. cultivar: CM 31678-R-4Y-2M-15Y-OM. 

PI 520012 origin: Mexico. cultivar: 31773-4M-3Y-1M-OY. pedigree:
ANHINGA SIB/CAPELLI ENANO*3/GAZA/3/TEHUACAN*3/BARRIGON 


PI 520047  origin: Pakistan.  cultivar: BLUEBIRD/GILL/2/YAQUI 50.  
pedigree: ENANO/KALYANSONA*3/3/ LILIFEN/2/HD 832/BLUEBIRD.  

PI 520048  origin: Mexico.  cultivar: CM 33090-N-1M-5Y-OM.  
pedigree: KAVKAZ/TANORI 71/2/TITO.  disease resistance: Leaf rust. 


PI 520050  origin: Mexico.  cultivar: 27812-2Y-4M-1Y-OM.  pedigree: 

PI 520051  origin: Mexico.  cultivar: II-27105-31M-300Y.  pedigree: 
MENGAVI/8156/2/JARAL SIB/SIETE CERROS.  disease 

PI 520052  origin: Mexico.  cultivar: CM 1156-29M-1Y-3M-0Y.  

PI 520053  origin: Mexico.  cultivar: 31814-1L-OC.  pedigree: 
TRITICUM DURUM (TIP)/TRITICUM SPHAEROCOCCUM/2/RAMIF/4/TREMOS MOLLE  
ENANO/*2TEHUACAN/3/ZENATI/BOUTEILLE/2/WELLS/5/DELTA.  

PI 520054  origin: Pakistan.  cultivar: CHOLI/2/ROQUE SIB/SOTY/3/SISKEN.  pedigree: SIB/PAVON SIB.  disease 

PI 520055  origin: Mexico.  cultivar: 31680-2L-0L.  pedigree: 


PI 520058  origin: Mexico.  cultivar: 27105-21M-300Y-3M-1Y.  
PI 519880 to 520121-continued


PI 519880 to 520121-continued


PI 519880 to 520121-continued


PI 519880 to 520121-continued


PI 519880 to 520121-continued

PI 520111  
origin: Mexico.  
cultivar: PINGUINO.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520112  
origin: Mexico.  
cultivar: PETREL SIB.  
pedigree: CM 601-500M-500Y-500M-OY.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520113  
origin: Mexico.  
cultivar: D 25624-7M-2Y-1M-3Y-1M-OY.  
pedigree: GRULLA SIB/2/*2BARRIGON YAQUI/TEHUACAN/3/213W.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520114  
origin: Mexico.  
cultivar: R 295.  
disease resistance: 
Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520115  
origin: Mexico.  
cultivar: D 10.  
disease resistance: 
Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520116  
origin: Mexico.  
cultivar: CM 13414-1Y-3M-OY.  
pedigree: SNIPA SIB.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520117  
donor id: 12960.  
origin: UNKNOWN.  
cultivar: FAO 25190.  
pedigree: REICHENHOCHIR/BD. 
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520118  
origin: Mexico.  
cultivar: BERK/ONI.  
disease resistance: 
Stem and leaf rust.  
Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520119  
origin: UNKNOWN.  
cultivar: HAURANI NAWAWI.  
disease resistance: 
Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520120  
origin: Mexico.  
cultivar: PETREL SIB.  
pedigree: CM 601-500M-500Y-500M-PTL-OY.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520121  
origin: UNKNOWN.  
cultivar: TRINAKRIA.  
disease resistance: 
Leaf and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520122 to 520124. X Triticosecale sp. POACEAE Triticale

Donated by: Moseman, J.G., USDA-ARS, Germplasm Quality and 
Enhancement Lab., Beltsville, Maryland, United States. remarks: 
Materials received through International Rust and Powdery Mildew 
Nursery Program. Received October 1987.

PI 520122  
origin: Mexico.  
cultivar: BEAVER.  
disease resistance: 
Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 520123  
**origin:** Mexico.  
**cultivar:** BADGER.  
**pedigree:** OY.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520124  
**origin:** Mexico.  
**cultivar:** YORME.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520125 to 520254. *Triticum aestivum* L.  
**POACEAE**  
Common wheat

**Donated by:** Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States.  
**remarks:** Materials received through International Rust and Powdery Mildew Nursery Program. Received October 1987.

PI 520125  
**origin:** UNKNOWN.  
**cultivar:** KASUSKA.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520126  
**origin:** Syria.  
**cultivar:** CM 34630-D-5M-5Y-5M-1Y-1M-OY.  
**pedigree:** GALLO/CUCKOO/2/KAVKAZ/SUPER X.  
**disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520127  
**origin:** Mexico.  
**cultivar:** D 27582-8M-1Y-1M-2Y-1M-OY.  
**pedigree:** FLAMINGO SIB.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520128  
**origin:** India.  
**cultivar:** HD 2171.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520129  
**origin:** Syria.  
**cultivar:** CM 34555-B-1M-4Y-1M-1Y-1M-OY.  
**pedigree:** BLUEBIRD/GALLO/2/CAJEME 71/TRITICUM AESTIVUM/3/KALYANSONA/ BLUEBIRD.  
**disease resistance:** Yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.

PI 520130  
**origin:** Brazil.  
**cultivar:** PF 73226.  
**pedigree:** IAS 20/*3SINVALOCHO GAMA.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 520131  
**origin:** Brazil.  
**cultivar:** MR 7272.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 520132  
**origin:** Syria.  
**cultivar:** CM 38286-L-1Y-6M-500Y-500M-502Y-OM.  
**pedigree:** MARIS PLOUGHMAN/3/CIANO SIB/SIETE CERROS/2/CORRE CAMINOS/4/HORK/5/SUPER X/AFRICA MAYO.  
**disease resistance:** Yellow (stripe) and leaf rust. Spring Annual. Cultivated. Seed.
PI 520133  
**origin:** Australia.  **cultivar:** W 3496.  **pedigree:** COMBINATION III, VERSTEIN/C1 12632.  **disease resistance:** Stem rust.  **Spring Annual. Cultivated. Seed.**

PI 520134  
**origin:** South Africa.  **cultivar:** W 6619-W 16-W1-4-W2-WM.  **pedigree:** NORIN 10/ BREVOR 17/2/ GABOTO/ LD 357/3/ CAJEME 54/4/ STERLING /5/(3420)/ FRONTANA/ THATCHER/ 4/ II-44-23 (C1 12917)/ THATCHER /2/ KLEINTRO /3/ KRUGER/ UNIE 31/6/ CIANO/7/ TEZANOS PINTOS PRECOZ/564 A/2/ SKEMER, W 173.  **disease resistance:** Stem rust.  **Spring Annual. Cultivated. Seed.**

PI 520135  
**origin:** South Africa.  **cultivar:** W 6648-W3-W1.5-W1.4-W5-EM, W 174.  **pedigree:** SONORA 64/2/ TEZANOS PINTOS PRECOZ/ YAQUI 54(E1898)/7/NORIN 10/ BREVOR 17/2/ GABO/ LD 357/3/ RHEEBOK (3462)/4/NORIN 10/ BREVOR 17/2/ GABO/ LD 357/3/ FLEMEKS/5/ AGROPYRON DERIVATIVE/6/(3309) GABO/Y 255/2/YAKTANA 54/NOV B21.1C/3/KENYA 20/4/ CIANO SIB.  **disease resistance:** Stem rust.  **Spring Annual. Cultivated. Seed.**

PI 520136  
**origin:** South Africa.  **cultivar:** W 6652-W6-W1-2-W1-WM.  **pedigree:** FLORENCE/AURORE/2/ REICHENBACHII KORN/3/MENGAVI/II-60-127, W 175.  **disease resistance:** Stem rust.  **Spring Annual. Cultivated. Seed.**

PI 520137  
**origin:** South Africa.  **cultivar:** W 6652-W6-W1-2-W1-WM.  **pedigree:** FLORENCE/AURORE/2/ REICHENBACHII KORN/3/MENGAVI/II-60-127, W 176.  **disease resistance:** Stem rust.  **Spring Annual. Cultivated. Seed.**

PI 520138  
**origin:** South Africa.  **cultivar:** W 6652-W18-W1.3-W4-WM.  **pedigree:** FLORENCE/AURORE/2/ REICHENBACHII KORN/3/MENGAVI/II-60-127, W 177.  **disease resistance:** Stem rust.  **Spring Annual. Cultivated. Seed.**

PI 520139  
**origin:** South Africa.  **cultivar:** W 6652-W29-W1.2-W1-WM.  **pedigree:** FLORENCE/AURORE/2/ REICHENBACHII KORN/3/MENGAVI/II-60-127, W 178.  **disease resistance:** Stem rust.  **Spring Annual. Cultivated. Seed.**

PI 520140  
**origin:** South Africa.  **cultivar:** W 6112-WM-W7-W3-WM.  **pedigree:** AZTECA/CIANO SIB, W 182.  **disease resistance:** Stem and yellow (stripe) rust.  **Spring Annual. Cultivated. Seed.**

PI 520141  
**origin:** South Africa.  **cultivar:** RP 4492-M4-M1-RP4-TM.  **pedigree:** ERA/BAJIO 66.2.BLUEBIRD/INIA, W 185.  **disease resistance:** Stem and yellow (stripe) rust.  **Spring Annual. Cultivated. Seed.**
PI 520142  
**origin:** South Africa.  
**cultivar:** RP 10717-M4-M2-RP 01-TM.  
**pedigree:** CHANATI/ UP 301, W 186.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520143  
**origin:** South Africa.  
**cultivar:** RP 6429-M7-M2-RP 01-TM.  
**pedigree:** TOBARI 66/CIANO SIB/3/CIANO/SIETE CERROS/2/ CORRE CAMINOS/ TOBARI, W 187.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520144  
**origin:** South Africa.  
**cultivar:** RP 4492-M4-M1-RP4-TM.  
**pedigree:** ERA/BAJIO 66/2/BLUEBIRD/INIA, W 188.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520145  
**origin:** South Africa.  
**cultivar:** W 189.  
**pedigree:** FLORENCE/AURORE/2/REICHENBACHII KORN/3/MENGAVI/I1-60-127.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520146  
**origin:** South Africa.  
**cultivar:** W 5870-3-M-5-WM.  
**pedigree:** TIMGALEN/2/CRESPO 63(65 ISWRN-122)/JARAL 66, W 158.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520147  
**origin:** South Africa.  
**cultivar:** T 5426-M-(B)-1-W1-CM.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520148  
**origin:** South Africa.  
**cultivar:** W 5441-M-1-M-W2-LM.  
**pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54(E 1901)/3/HEEMRAAD/4/TEZANOS PINTOS PRECOZ/SONORA 64, W 160.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520149  
**origin:** South Africa.  
**cultivar:** T 5634-1-1-M-W2-TM.  
**pedigree:** EL GOUCHO/SONORA 64/3/SONORA 64/TEZANOS PINTOS PRECOZ/2/ YAQUI 54, W 162.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520150  
**origin:** South Africa.  
**cultivar:** T 335-M(A)-2-A2-M-M-W1-TM.  
**pedigree:** JANITOR/AZTECA, W 163.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
PI 520125 to 520254-continued

PI 520151  
origin: South Africa.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520152  
origin: South Africa.  
pedigree: KENYA 20/MENGAVI,W 165.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520153  
origin: South Africa.  
pedigree: SAUNDERS/ETOILE DE CHOISY,W 166.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520154  
origin: South Africa.  
cultivar: CMW 4260-M-T1-W3-WM.  
pedigree: TOBARI 66 SIB/NAPO/2/BONZA,W 169.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520155  
origin: South Africa.  
cultivar: CMW 4260-M-T3-W1-WM.  
pedigree: TOBARI 66 SIB/NAPO/2/BONZA,W 171.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520156  
origin: Syria.  
cultivar: SWN 2984-M-1Y-1M-2Y-OM-OMN.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520157  
origin: Mexico.  
cultivar: R 67-191-3B-2D-4D-1D-OH.  
pedigree: LIFN/MARROQUI(F2)/6/(4777)FROCOR/3/MCMURACHY/2/KENTANA/ YAQUI 50/5/REIZ YAQUI/4/KENTANA.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520158  
origin: Mexico.  
cultivar: D 69-73-2L-1L-OL.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520159  
origin: Kenya.  
cultivar: KENYA NUNGU.  
pedigree: 13340.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 520160  
**origin:** Syria.  **cultivar:** SWN 1698-3L-OKE-1MB-2MN-OMN.  
**pedigree:** KAVKAZ/2/KALYANSONA/BLUEBIRD.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520161  
**origin:** Kenya.  **cultivar:** CM 29600-4L-OKE.  

PI 520162  
**origin:** Kenya.  **cultivar:** VT 1111.  **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520163  
**origin:** Kenya.  **cultivar:** BREAD WHEAT 23.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520164  
**origin:** Algeria.  **cultivar:** ALGERIA LINE 47.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520165  
**origin:** Algeria.  **cultivar:** HEDHA 3.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520166  
**origin:** Mexico.  **cultivar:** ULACAH 75.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520167  
**origin:** Mexico.  **cultivar:** CEHAN 75.  **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520168  
**origin:** Mexico.  **cultivar:** RANJAJA 12.  **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520169  
**origin:** Mexico.  **cultivar:** COWBIRD SIB.  **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520170  
**origin:** Mexico.  **cultivar:** GAVILAN SIB.  
**pedigree:** CIANO/NOROESTE 66,34167-91Y-6M-OY.  **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520171  
**origin:** Kenya.  **cultivar:** ALONDRA.  **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.


PI 520182  origin: South Africa.  cultivar: CM 6649-W1-W8-WM.  

PI 520183  origin: Mexico.  cultivar: CD 17305-A-5M-1Y-1M-OY.  

PI 520184  origin: South Africa.  cultivar: CD 6649-W1-W8-WM-1M-OY.  

PI 520185  origin: South Africa.  cultivar: W 5870-3-M-4-LM.  


PI 520187  origin: Mexico.  cultivar: CD 16895-A-3M-2Y-5M-OY.  

PI 520188  origin: Mexico.  cultivar: CD 13510-F-2Y-5M-OY.  

PI 520189  origin: Mexico.  cultivar: CD 10549-U-7M-2Y-1M-OY.  


PI 520202  
**origin:** United States.  
**cultivar:** ND 522*2/3/ND 496-25/2/AURORA/ND 522.  
**disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.

PI 520203  
**origin:** United States.  
**cultivar:** ND 572.  
**pedigree:** BUTTE*/ND 507.  
**disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.

PI 520204  
**origin:** United States.  
**cultivar:** OLAF/4/0 42/WRT 238/2/WANKEN I/3/CHRIS/.  
**pedigree:** WI 261.  
**disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520205  
**origin:** Ethiopia.  
**cultivar:** VQ 105.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520206  
**origin:** Mexico.  
**cultivar:** 30842-58R-1M-4Y-OM.  
**pedigree:** JUPATECO 73 SIB.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 520207  
**origin:** United States.  
**cultivar:** D 71110.  
**pedigree:** 6580/WARD.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520208  
**origin:** United States.  
**cultivar:** YAVOROS.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 520209  
**origin:** Mexico.  
**cultivar:** MEXI SIB/MAGH SIB,CD 3879-29M-1M-OY-LB.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520210  
**origin:** France.  
**cultivar:** CHAMPLEIN/ARONOLE,68.8.  
**disease resistance:** Powdery mildew. Spring Annual. Cultivated. Seed.

PI 520211  
**origin:** United States.  
**cultivar:** D 804.  
**pedigree:** D 77204/D 7618.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520212  
**origin:** United States.  
**cultivar:** MN 7222.  
**pedigree:** ERA*2/CHRIS MUTANT.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520213  
**origin:** United States.  
**cultivar:** MN 7353.  
**pedigree:** II-60-105/RR 646-68/2/III-67-7/NS 732/3/WALDRON/ERA.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
PI 520214  
**origin:** United States.  
**cultivar:** MN 74103.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520215  
**origin:** United States.  
**cultivar:** D 803.  
**pedigree:** D 7618/D 773.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520216  
**origin:** South Africa.  
**cultivar:** CMA 14793-W2-W6-G2.  
**pedigree:** ARTHUR TYPE,FC/TRANSFER/BULGARIA 88,W 238.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520217  
**origin:** South Africa.  
**cultivar:** CMA 14793-W2-W9-G7.  
**pedigree:** ARTHUR TYPE,FC/TRANSFER/BULGARIA 88,W 240.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520218  
**origin:** South Africa.  
**cultivar:** CMA 14793-W2-W11-G7.  
**pedigree:** ARTHUR TYPE,FC/TRANSFER/BULGARIA 88,W 241.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520219  
**origin:** South Africa.  
**cultivar:** CMA 14793-W2-W12-G4.  
**pedigree:** ARTHUR TYPE,FC/TRANSFER/BULGARIA 88,W 242.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520220  
**origin:** South Africa.  
**cultivar:** CMA 14793-W2-W18-G6.  
**pedigree:** ARTHUR TYPE,FC/TRANSFER/BULGARIA 88,W 246-1.  
**disease resistance:** Stem rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520221  
**origin:** South Africa.  
**cultivar:** CMA 15152-W7-W1.5-G1.  
**pedigree:** BLUEBIRD/PATO/2/PV 18A/CIANO 67,W 246-2.  
**disease resistance:** Stem rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520222  
**origin:** South Africa.  
**cultivar:** CMA 15188-W1-W2-G3.  
**pedigree:** PLAN ALTO/RON 2,W 247.  
**disease resistance:** Stem rust.  
**Spring Annual.**  
**Cultivated. Seed.**

PI 520223  
**origin:** South Africa.  
**cultivar:** W 7157-W1.8-W1-W1.15-E4.  
**pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/NAINARI 60(E 1906)/3/3* DROMEDARIS/4/BAJIO 66,W 253.  
**disease resistance:** Stem rust.  
**Spring Annual.**  
**Cultivated. Seed.**
PI 520224  
**origin:** South Africa.  
**cultivar:** W 6648-W3-W1.5-W1.4-W13-E5, W 256.  
**pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54 (E1898)/7/(3462) NORIN 10 BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/RHEEBOK/5/(3466)NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/SKEMER/6/AGROPYRON 49/8/GABO/YAQUI 255/2/YAKTANA 54 ***.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520225  
**origin:** South Africa.  
**cultivar:** W 6648-W3-W1.5-W1.4-W13-E5, W 257.  
**pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54 (E1898)/7/(3462) NORIN 10 BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/RHEEBOK/5/(3466)NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/SKEMER/6/AGROPYRON 49/8/GABO/YAQUI 255/2/YAKTANA 54 ***.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520226  
**origin:** South Africa.  
**cultivar:** W 6648-W3-W1.5-W1.4-W13-E4-El-TM, W 258.  
**pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54 (E1898)/7/(3462) NORIN 10 BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/RHEEBOK/5/(3466)NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/SKEMER/6/AGROPYRON 49/8/GABO/KENYA 255/2/YAKTANA 54 ***.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520227  
**origin:** South Africa.  
**cultivar:** W 6648-W3-W1.5-W1.4-W13-E4-E3-TM, W 259.  
**pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54 (E1898)/7/(3462) NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/RHEEBOK/5/(3466)NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/SKEMER/6/AGROPYRON 49/8/GABO/YAQUI 255/2/YAKTANA 54 ***.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520228  
**origin:** United States.  
**cultivar:** WALDRON/ERA,MN 70170R.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 520229  
**origin:** United States.  
**cultivar:** CRIM/ERA*2/2/MN 6923S,MN 7357.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520230  
**origin:** United States.  
**cultivar:** MN 73168.  
**pedigree:** CRIM/ERA*2/2/BUITRE(AGROTRITICUM)/GALLO.  
**disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.


PI 520241  origin: United States.  
cultivar: D 7615.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520242  origin: Mexico.  
cultivar: CM 37130-15Y-1M-3Y-OM.  
pedigree: MOR SIB.  
disease resistance: Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520243  origin: Mexico.  
cultivar: CD 1283-A-4Y-1Y-1M-OY.  
pedigree: ZENATI/BOUTEILLE/2/MAHON M REXI/3/SUPREMO 15/CRA N SIB/2/ MEXI SIB.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520244  origin: United States.  
cultivar: D 801.  
pedigree: D 77169/D 773.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520245  origin: United States.  
cultivar: D 782.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520246  origin: United States.  
cultivar: D 7618.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520247  origin: United States.  
cultivar: D 7609.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520248  origin: Mexico.  
cultivar: VEERY 2.  
disease resistance: Stem and leaf rust.  
Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520249  origin: Mexico.  
cultivar: VEERY 3.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520250  origin: Mexico.  
cultivar: VEERY SIB.  
pedigree: CM 33027-F-12-M-1Y-2M-1Y-1M-OY.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520251  origin: United States.  
cultivar: D 78177.  
pedigree: D 74111/CANDO.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520252  origin: United States.  
cultivar: D 78168.  
pedigree: D7354/CANDO.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 520125 to 520254-continued

PI 520253  
**origin:** United States.  **cultivar:** ND 601.  **pedigree:** BUTTE*2/ND507.  **disease resistance:** Leaf rust.  Spring Annual.  Cultivated.  Seed.

PI 520254  
**origin:** Mexico.  **cultivar:** CD 20626-5M-2Y-1M-0Y.  
**pedigree:** SHWA SIB/BITTERN SIB.  **disease resistance:** Leaf and yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 520255 to 520257. X Triticosecale sp. POACEAE Triticale

**Donated by:** Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States.  **remarks:** Materials received through International Rust and Powdery Mildew Nursery Program.  Received October 1987.

PI 520255  
**origin:** Mexico.  **cultivar:** JUPPA SIB.  **disease resistance:** Stem and yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 520256  
**origin:** Mexico.  **cultivar:** PUMA SIB.  **disease resistance:** Stem and leaf rust. Yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 520257  
**origin:** Mexico.  **cultivar:** HERINO.  **disease resistance:** Stem and yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 520258 to 520419. Triticum aestivum L. POACEAE Common wheat

**Donated by:** Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States.  **remarks:** Materials received through International Rust and Powdery Mildew Nursery Program.  Received October 1987.

PI 520258  
**origin:** Australia.  **cultivar:** SUNECA.  **pedigree:** CIANO 67/SPICA/2/AMBER MUTANT/SONORA 64,SUN 44E.  **disease resistance:** Stem rust.  Spring Annual.  Cultivated.  Seed.

PI 520259  
**origin:** Mexico.  **cultivar:** CIANO 79.  **disease resistance:** Yellow (stripe) rust.  Spring Annual.  Cultivated.  Seed.

PI 520260  


PI 520272  origin: Canada.  
cultivar: LEAF RUST MONOGENE LINE
ECH(THATCHER).  
pedigree: RL 6014.  
disease resistance:

PI 520273  origin: Canada.  
cultivar: LEAF RUST MONOGENE LINE
LR30+T(THATCHER.  
pedigree: *6/TERENZIO)),RL
6049(LR30+T).  

PI 520274  origin: Italy.  
cultivar: V 910.  
disease resistance:

PI 520275  origin: Italy.  
cultivar: V 922.  
disease resistance:

PI 520276  origin: Italy.  
cultivar: V 747.  
disease resistance:

PI 520277  origin: United States.  
cultivar: ND 596.  
pedigree: BUTTE*2/3/ALEX SIB/2/BUTTE*2/ND 507.  

PI 520278  origin: United States.  
cultivar: ND 595.  
pedigree: OLAF*2/3/WALDRON*2/AGENT/2/ND 496.  

PI 520279  origin: Brazil.  
cultivar: PF 74043.  
pedigree: TRIUMPH/TRITICUM AEGILOPS/2/S 40.  

PI 520280  origin: Brazil.  
cultivar: PF 7578.  
pedigree: JARAL SIB/IAS 51/2/IAS 59.  

PI 520281  origin: United States.  
cultivar: ND 593.  
pedigree: LEN/BUTTE*2/ND 507.  

PI 520282  origin: Brazil.  
cultivar: CEP 75336.  
pedigree: SA 3423/PAT 7285.  

PI 520283  origin: Brazil.  
cultivar: SB 75115.  
pedigree: ARTHUR TYPE/4/ANDES/TRANSFER/SUD/3/INIA 66/5/GABOTO.  

PI 520284  origin: United States.  
cultivar: ND 586.  
pedigree: ND 537/4/ND 496/3/GIZA 141/NA 710.  


PI 520307  
**origin:** Brazil.  
**cultivar:** R 30147,99414.  
**pedigree:** CLVN.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520308  
**origin:** United States.  
**cultivar:** SWM 6255-3Y-1K-OK.  
**pedigree:** KALYANSONA/ONED ZANSTI/3/TRIUMPH/2/D 6301/NAINARI/4/CANARIO SIB.  
**disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520309  
**origin:** United States.  
**cultivar:** SWM 6391-5Y-1K-OK.  
**pedigree:** RPB 14-98/2/KALYANSONA/BLUEBIRD.  
**disease resistance:** Leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520310  
**origin:** United States.  
**cultivar:** SWM 6468-5Y-1K-OK.  
**pedigree:** MEXICANO 75-76 (IWSWSN) 286/4/BLUEBIRD/CIANO/3/NADADORIS 63/CH-/2/S-.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520311  
**origin:** United States.  
**cultivar:** SWM 6515-1Y-1K-OK.  
**pedigree:** WA 5987/ANAHUAC.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520312  
**origin:** United States.  
**cultivar:** SWM 6367-1Y-1K-OK.  
**pedigree:** CENTURK/CIANO/2/EMU SIB.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520313  
**origin:** United States.  
**cultivar:** SWM 6367-1Y-2K-OK.  
**pedigree:** CENTURK/CIANO/2/EMU SIB.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520314  
**origin:** United States.  
**cultivar:** MN 75181.  
**pedigree:** MN 7086/MN 72132.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520315  
**origin:** United States.  
**cultivar:** MN 75136.  
**pedigree:** ND 522/MN 69124.  
**disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 520316  
**origin:** United States.  
**cultivar:** MN 7444.  
**pedigree:** PURKOF*2/3/PITIC 62/CHRS/2/SONORA 64/4/KITT/5/AGRUS.  
**disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 520317  
**origin:** United States.  
**cultivar:** SWM 6685-1Y-1K-OK.  
**pedigree:** DRUCHAMP DWARF/NORD DESPREZ/2/FLICKER.  
**disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.


PI 520258 to 520419-continued

PI 520330  origin: Mexico.  cultivar: CM 33203-K-9M-2Y-1M-1Y-1M-OY.  
pedigree: BOW SIB.  disease resistance: Leaf and yellow (stripe) rust. Stem rust.  

pedigree: THRUSH SIB.  disease resistance: Leaf rust.  

PI 520332  origin: United States.  cultivar: MN 7357.  
pedigree: CRIM/*2ERA/2/MN 6923S.  disease resistance: Stem and leaf rust.  

pedigree:  disease resistance: Yellow (stripe) rust.  

PI 520334  origin: Mexico.  cultivar: SWM 4589-7Y-18M-1Y-OM.  
pedigree: MYNA SIB.  disease resistance: Leaf and yellow (stripe) rust.  

PI 520335  origin: Mexico.  cultivar: CM 33027-F-12M-1Y-2Y-2M-OY.  
pedigree: VEERT SIB.  disease resistance: Leaf and yellow (stripe) rust. Stem rust.  

PI 520336  origin: Mexico.  cultivar: CM 31678-R-4Y-2M-15Y-OM.  
pedigree: BUCKBUCK SIB.  disease resistance: Yellow (stripe) rust.  

PI 520337  origin: Mexico.  cultivar: CM 26346-A-11Y-1M-3Y-1M-1Y-OB.  
pedigree: ANI SIB.  disease resistance: Leaf and yellow (stripe) rust.  

PI 520338  origin: Mexico.  cultivar: CM 34630-D-1M-9Y-6M-2Y-1M-OY.  
pedigree: SUNBIRD SIB.  disease resistance: Leaf and yellow (stripe) rust.  

PI 520339  origin: Mexico.  cultivar: CM 34603-A-1M-3Y-3M-1Y-1M-OY.  
pedigree: GALLO/YECORA F70(RESEL B)/3/AURORA/2/KALYANSONA/BLUEBIRD.  disease resistance:  
Leaf rust. Yellow (stripe) rust.  

PI 520340  origin: Mexico.  cultivar: CM 25988-8Y-3Y-1Y-OM.  
PI 520258 to 520419-continued

PI 520341  
origin: Mexico.  
cultivar: CM 21335-9Y-3M-1Y-OB.  
pedigree: TEZANOS PINTOS PRECOZ82/ANDES
ENANO/2/INIA/3/JARAL 66/ KAVKAZ.  
disease resistance:  
Stem and leaf rust. Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 520342  
origin: Mexico.  
cultivar: SWM 4160-2Y-20M-1Y-OM.  
pedigree: CAR 422/ANAHUAC.  
disease resistance: Leaf and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 520343  
origin: Mexico.  
cultivar: SWM 4215-41M-1Y-4M-1Y-OM.  
pedigree: ROJO 37/GOHS 127/2/KALYANSONA/BLUEBIRD.  
disease resistance: Leaf and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 520344  
origin: Mexico.  
cultivar: SWM 4127-1Y-1M-4Y-2M-1Y-OM.  
pedigree: MILDRESS/COCORAQUE 75-S.  
disease resistance:  
Leaf and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 520345  
origin: United States.  
cultivar: MN 78168.  
pedigree: CRIM/2*ERA/2/BUI GALLO.  
disease resistance: Stem and leaf rust. Spring Annual.  
Cultivated. Seed.

PI 520346  
origin: Canada.  
cultivar: RL 4409 BREAD WHEAT 62.  
pedigree: NEEPAWA*5/2/TER/2THATCHER/3/RL 4409, BW 62.  
disease resistance: Stem and leaf rust. Spring Annual.  
Cultivated. Seed.

PI 520347  
origin: Canada.  
cultivar: RL 4410 BREAD WHEAT 63.  
pedigree: NEEPAWA*T/2/TER/2THATCHER/3/RL 4410.  
disease resistance: Leaf rust. Spring Annual.  
Cultivated. Seed.

PI 520348  
origin: Ethiopia.  
cultivar: RIECHENBACHII.  
Cultivated. Seed.

PI 520349  
origin: Ethiopia.  
cultivar: MAROU.  
disease resistance: Stem and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 520350  
origin: United States.  
cultivar: ND 587.  
pedigree: BUTTE*ND 507.  
disease resistance: Leaf rust. Spring Annual.  
Cultivated. Seed.

PI 520351  
origin: United States.  
cultivar: ND 590.  
pedigree: ND 559/2/ND 522/TEWON.  
Cultivated. Seed.
|----------|---------------------------------------------------------------------------------------------------|
PI 520364  origin: Mexico.  cultivar: CD 27137-1M-1Y-4Y-OY.  
pedigree: MEXI 75/CHUMPI 2/2/FAB SIB/P 66 270/3/ GOO SIB.  
disease resistance: Yellow (stripe) rust.  Spring Annual.  
Cultivated.  Seed.

PI 520365  origin: Mexico.  cultivar: CD 20626-6M-2Y-1M-OY.  
pedigree: SHWA SIB/YAV SIB.  disease resistance: Leaf and 

PI 520366  origin: Mexico.  cultivar: KEA SIB.  pedigree: CM 
21335-C-9Y-3M-1Y-1Y-1Y-OB.  disease resistance: Stem, 

PI 520367  origin: Mexico.  cultivar: VEERY SIB,CM 
33027-F-15M-500Y-OM-87B-OY.  disease resistance: Stem and 

PI 520368  origin: Mexico.  cultivar: CM 33203-K-9M-2Y-1M-1Y-2M-OY.  
pedigree: BOW SIB.  disease resistance: Stem and leaf 

PI 520369  origin: Mexico.  cultivar: HAHN SIB,CM 
33682-L-1Y-1Y-4M-4Y-100B.  pedigree: -501Y.  disease 
resistance: Stem and leaf rust.  Yellow (stripe) rust.  

PI 520370  origin: Brazil.  cultivar: CM 40454-11M-4Y-2M-3Y-OM.  
pedigree: NEELKANT SIB.  disease resistance: Stem and 

PI 520371  origin: Syria.  cultivar: CM 6943-5L-1L-OAP.  pedigree: 
BLUEBIRD/NORTINO 67/2/KALYANSONA 227/BLUEBIRD.  disease 
resistance: Leaf and yellow (stripe) rust.  Spring 

PI 520372  origin: Syria.  cultivar: CM 5576-2S-3S-OS.  pedigree: 
BLUEBIRD/NORTINO 67/2/CAKUDAD/SIETE CERROS.  disease 

PI 520373  origin: Syria.  cultivar: C 18155/2*NARINO 59.  pedigree: 
CODE 70=133.  disease resistance: Stem and leaf rust.  

PI 520374  origin: Syria.  cultivar: CM 2281-13M-1Y-3M-1Y-1M-OY.  
pedigree: CIANO SIB/INIA/2/LILIFEN/3/TOBARI/2/KLEIN 
PETISO/RAF.  disease resistance: Stem and leaf rust.  
PI 520375  
**origin:** Syria.  
**cultivar:** CM 23091-1M-2Y-OY.  
**pedigree:** TECOLOTE/4/LARAMIE/2/FEDERATION/KENYA 350AD 9C2/3/GABO/2/FEDERATION/KENYA 350 AD 9C2/3/GABO.  
**disease resistance:** Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520376  
**origin:** Syria.  
**cultivar:** CM 7723-500M-500Y-OM-500M-OY.  
**pedigree:** BLUEBOY/2/TOBARTI 66/8156.  
**disease resistance:** Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520377  
**origin:** Syria.  
**cultivar:** SE 381-4S-1S-6S-OS.  
**pedigree:** KAVKAZ/4/CHILE/INIA/3/CIANO/2/EL GOUCHO/SONORA.  
**disease resistance:** Stem and leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520378  
**origin:** Syria.  
**cultivar:** ALG 63-10BK-OBJ.  
**pedigree:** CAJEME/2/TEZANOS PINTOS PRECOZ/*2SONORA.  
**disease resistance:** Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520379  
**origin:** Syria.  
**cultivar:** CM 15683-2S-13S-OS.  
**pedigree:** CIANO/SONORA 64/3/BLUEBOY/2/YAQUI 50 ENANO/*3 KALYANSONA.  
**disease resistance:** Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520380  
**origin:** Syria.  
**cultivar:** CM 26599-2T-1Y-1M-1Y-OAP.  
**pedigree:** BLUEBOY SIB/TOBARI 66.  
**disease resistance:** Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520381  
**origin:** Syria.  
**cultivar:** CM 7806-15M-2Y-2M-1Y-OY.  
**pedigree:** CARTHAGE/2/KALYANSONA/BLUEBOY.  
**disease resistance:** Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520382  
**origin:** Syria.  
**cultivar:** L 1032-4L-OKE-OS-4S-OAP.  
**pedigree:** KAVKAZ/SUPER X.  
**disease resistance:** Leaf rust.  
Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520383  
**origin:** Syria.  
**cultivar:** CM 37034-1S-1AP-OAP.  
**pedigree:** TOQUIFEN SIB/TANORI 71 RESEL.  
**disease resistance:** Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520384  
**origin:** Syria.  
**cultivar:** SWM 4781-2S-4AP-OAP.  
**pedigree:** RIEBESEL 47-51/TANORI 71 RESEL.  
**disease resistance:** Leaf rust.  
Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520385  
**origin:** Syria.  
**cultivar:** CM 32973-2AP-3AP-OAP.  
**pedigree:** MEXICAN BLUESTE*2/2/INIA SIB/NAPOYO/4/NOROESTE 66/BLUEBIRD/2/CIANO/3/NADADORES 63/CHRIS SIB/5/SIETE CERROS.  
**disease resistance:** Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 520386  
**origin:** Syria.  
**cultivar:** CM 32285-3S-4AP-OAP.  
**pedigree:** BOBIRO AIB/2/BLUEBIRD/KALYANSONA.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520387  
**origin:** Syria.  
**cultivar:** L 17-7S-7S-4AP-OAP.  
**pedigree:** INIA/NAPO/2/TOBARI 66/SPARROW, (CRU3-EL).  

PI 520388  
**origin:** Syria.  
**cultivar:** CM 21849-5S-9S-OKE.  
**pedigree:** CIANO/GALLO/2/BLUEBIRD/INIA.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520389  
**origin:** Syria.  
**cultivar:** CM 15624-3S-25-OS.  
**pedigree:** TOBARI SIB/8156/2/YAQUI 50 ENANO/*3KALYANSONA.  
**disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520390  
**origin:** Syria.  
**cultivar:** CM 9799-126M-1M-5Y-OY.  
**pedigree:** BIT SIB,21563/ANHINGA/2/FLAMINGO SIB.  
**disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520391  
**origin:** Syria.  
**cultivar:** CM 9880-25M-3Y-1M-OY.  
**pedigree:** RUFF SIB/FLAMINGO SIB.  
**disease resistance:** Leaf and yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.

PI 520392  
**origin:** Syria.  
**cultivar:** CD 10549-H54-2Y-5M-OY.  
**pedigree:** GERARDO 512/COCORIT SIB/3/RUFF SIB/FLAMINGO SIB.  
**disease resistance:** Leaf and yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.

PI 520393  
**origin:** Tunisia.  
**cultivar:** TUNISIAN DURUM 1.  
**disease resistance:** Leaf and yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.

PI 520394  
**origin:** Tunisia.  
**cultivar:** TUNISIAN DURUM 8.  
**disease resistance:** Leaf and yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.

PI 520395  
**origin:** Syria.  
**cultivar:** CM 18537-IY-OL-OAP.  
**pedigree:** RUFF SIB/2/JO SIB/CRANE SIB.  
**disease resistance:** Leaf and stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520396  
**origin:** Syria.  
**cultivar:** WAHA SIB.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
PI 520397  
**origin:** Syria.  
**cultivar:** COCORIT SIB/FLAMINGO SIB.  
**disease resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated.  Seed.

PI 520398  
**origin:** Syria.  
**cultivar:** A 4590-51P-4P-2P-2P.  
**pedigree:** CANDEALFEN/2/LAN/DWARF(F2)LAN.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual.  
Cultivated.  Seed.

PI 520399  
**origin:** Tunisia.  
**cultivar:** TUNISIAN DURUM 7.  
**disease resistance:** Stem and yellow (stripe) rust. Leaf rust.  

PI 520400  
**origin:** Syria.  
**cultivar:** CD 7471-4Y-2M-OY.  
**pedigree:** FLAMINGO SIB/USA IV 718.  
**disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual.  
Cultivated.  Seed.

PI 520401  
**origin:** Syria.  
**cultivar:** CD 10016-7SK-OSK.  
**pedigree:** AVETORO SIB/2/ANHINGA SIB/PELICANO SIB/3/PINGUIINO SIB.  
**disease resistance:** Stem and yellow (stripe) rust. Spring Annual.  
Cultivated.  Seed.

PI 520402  
**origin:** Syria.  
**cultivar:** L 614-OL-1AP-OAP.  
**pedigree:** MAGH SIB/4/JO SIB/3/GALLO SIB/2/ND 61130/LEEDS.  
**disease resistance:** Stem and yellow (stripe) rust. Leaf rust.  

PI 520403  
**origin:** Syria.  
**cultivar:** L 619-DL-5AP-OAP.  
**pedigree:** AVENTORO SIB/3/JO SIB/CRANE SIB/2/GANSO SIB/ANHANGA SIB.  
**disease resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated.  Seed.

PI 520404  
**origin:** Syria.  
**cultivar:** CD 19539-D-1Y-1AP-OAP.  
**pedigree:** RABI SIB/PI 94587/2/COCORIT 71/3/MEXI 75/4/VALNOVA.  
**disease resistance:** Yellow (stripe) rust and leaf rust. Spring Annual.  
Cultivated.  Seed.

PI 520405  
**origin:** Syria.  
**cultivar:** ICD 7780-1AP-OSH-OAP.  
**pedigree:** AVENTORO SIB/D 10.  
**disease resistance:** Stem rust. Spring Annual.  
Cultivated.  Seed.

PI 520406  
**origin:** Syria.  
**cultivar:** CD 13557-J-3Y-3M-1Y-OM.  
**pedigree:** BD 1543/IRRAT 69/2/COAT SIB/GAT SIB.  
**disease resistance:** Yellow (stripe) rust. Leaf rust. Spring Annual.  
Cultivated.  Seed.

PI 520407  
**origin:** Syria.  
**cultivar:** CD 19608-A-3Y-1M-OY.  
**disease resistance:** Leaf and yellow (stripe) rust. Spring Annual.  
Cultivated.  Seed.
PI 520408  origin: Syria.  **cultivar:** HORA SIB/CD  10549-H-7M-1Y-2M-OY.  **pedigree:** GERARDO 512/COCORIT SIB/2/RUFF SIB/FLAMINGO SIB.  **disease resistance:** Leaf and stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520409  origin: Syria.  **cultivar:** CM 17747-C-1M-4Y-OKE.  **pedigree:** CRANE SIB/D 21564/2/HERCULES/PINGUINO.  **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.


PI 520411  origin: Syria.  **cultivar:** D 31759-1M-2Y-1M-OY.  **pedigree:** STEWART 63/GALLO SIB/2/RD 119-1W-2Y.  **disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.

PI 520412  origin: Syria.  **cultivar:** SAND PIPER SIB.CM 10145-15M-1Y-OM.  **pedigree:** GTQ SIB/FLAMINGO SIB.  **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520413  origin: Syria.  **cultivar:** II 21566.  **pedigree:** VARIETY 12(F8)/OVIACHIC(Fl)/2/6540/*2 BARRIGON YAQUI ENANO.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.


PI 520416  origin: Syria.  **cultivar:** CM 10182-7M-OY.  **pedigree:** ANHINGA SIB/CRANE SIB/2/COCORIT SIB.  **disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.

PI 520417  origin: Brazil.  **cultivar:** CEP 7780.  **pedigree:** PF 6968*2/HADDEN.  **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

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PI 520258 to 520419—continued

PI 520418  
origin: Brazil.  
cultivar: IAPAR 3(ARACATU).  

PI 520419  
origin: Brazil.  
cultivar: OC 731070.  

PI 520420 to 520488. X Triticosecale sp. POACEAE Triticale

Donated by: Moseman, J.G., USDA-ARS, Germplasm Quality and Enhancement Lab., Beltsville, Maryland, United States. remarks: Materials received through International Rust and Powdery Mildew Nursery Program. Received October 1987.

PI 520420  
origin: Brazil.  
cultivar: PFT 7893.  
pedigree: FS 3972,7-48M-ON-0Y.  

PI 520421  
origin: Mexico.  
cultivar: NAVOJOA.  

PI 520422  
origin: Mexico.  
cultivar: NAVOJOA SIB.  

PI 520423  
origin: Mexico.  
cultivar: DRIRA.  

PI 520424  
origin: Mexico.  
cultivar: ARMADILLO.  

PI 520425  
origin: Mexico.  
cultivar: LIEBRE SIB.  

PI 520426  
origin: Mexico.  
cultivar: BOA SIB.  

PI 520427  
origin: Mexico.  
cultivar: CANANEA 79.  

PI 520428  
origin: Mexico.  
cultivar: CABORCA 79.  


PI 520462  origin: Mexico.  
cultivar: X 2802F-12M-1N-2M-OY.  
pedigree: M2A.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520463  origin: Mexico.  
cultivar: X 2832-29N-6M-3N-OM.  
pedigree: M2A.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520464  origin: Mexico.  
cultivar: X 2091-100Y-101B-2N-2M-4Y-1M-OY.  
pedigree: KOALA SIB.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520465  origin: Mexico.  
cultivar: X 2091-100-101B-4N-2M-OY-2M-OY.  
pedigree: KOALA SIB.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520466  origin: Mexico.  
cultivar: X 1648-8N-3M-OY.  
pedigree: 1A.  
disease resistance: Stem and leaf rust.  
Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520467  origin: Mexico.  
cultivar: FS 1897.  
pedigree: X-OM.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520468  origin: Mexico.  
cultivar: X 2148-4N-2M-2Y-1M-OY.  
pedigree: MIA.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520469  origin: Mexico.  
cultivar: X 2091-100Y-101B-2N-2M-3Y-1M-OY.  
pedigree: KOALA SIB.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520470  origin: Mexico.  
cultivar: X 308-27Y-106N.  
pedigree: ARMADILLO SIB.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520471  origin: Mexico.  
cultivar: MAPACHE.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520472  origin: Mexico.  
cultivar: BURA.  
pedigree: X 8417-E-1Y-7M-3Y-OM.  
disease resistance: Stem and yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520473  origin: Mexico.  
cultivar: MAYO/INIA/ARMADILLO.  
disease resistance: Yellow (stripe) rust and stem rust.  
Spring Annual.  
Cultivated.  
Seed.

681


PI 520486 origin: Mexico. cultivar: X 24560-9Y-3M-1Y-OM. 
pedigree: BREVOR SIB/ARABIAN ROJO. disease resistance: 
Yellow (stripe) rust. Powdery mildew. Stem rust. Spring 

PI 520487 origin: Mexico. cultivar: X 31100-5Y-1M-2Y-OM. 
pedigree: LIEBRE SIB. disease resistance: Yellow 
(stripe) rust. Stem and leaf rust. Powdery mildew. 

PI 520488 origin: Nepal. cultivar: JUANILLO 95. pedigree: X 
21295-OAP,NL 528. disease resistance: Powdery mildew. 

PI 520489 to 520596. Triticum aestivum L. POACEAE Common wheat

Donated by: Moseman, J.G., USDA-ARS, Germplasm Quality and 
Enhancement Lab., Beltsville, Maryland, United States. remarks: 
Materials received through International Rust and Powdery Mildew 
Nursery Program. Received October 1987.

PI 520489 origin: United States. cultivar: MN 5-164. pedigree: 
PRELUDE/8*MARQUIS*2/2/ESP 5-8-9. disease resistance: 

PI 520490 origin: United States. cultivar: BTSR24AG. pedigree: 
BAART/2/LITTLE CLUB/AGENT (MN SEL)(SR 24,LR 24). disease 
resistance: Stem and leaf rust. Spring Annual. 
Cultivated. Seed.

PI 520491 origin: Australia. cultivar: W2691 SR27. pedigree: 
LITTLE CLUB/2/GABO*3/CHARTER/3/CHINESE/IMPERIAL RYE(MN 
Cultivated. Seed.

PI 520492 origin: Canada. cultivar: RL 5045(SR 33). pedigree: 
TETRA CANTHATCH/AEGILOPS SQUARROSA. disease resistance: 

PI 520493 origin: United States. cultivar: BTSRTGT,BAART/GAMUT(MN 
Cultivated. Seed.

PI 520494 origin: United States. cultivar: LCS25ARS. pedigree: 
LITTLE CLUB/AGRUS.ARS-3(MN SEL) FROM OK)(SR 25,LR 19). 
disease resistance: Stem and leaf rust. Spring Annual. 
Cultivated. Seed.
PI 520489 to 520596-continued


PI 520489 to 520596-continued


PI 520520  
origin: France.  
cultivar: FR 85-1.  
pedigree: CHAMPAINE/ARONDE(68.8).  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520521  
origin: France.  
pedigree: LOROS/2/CAPITOLE/ROAZON(29).  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520522  
origin: France.  
cultivar: FR 85-3.  
pedigree: TRITICUM DICOCCUM/2/CAPELLE/2/NAI NARI 60 SIB.  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520523  
origin: France.  
pedigree: A 30/BIZIL(26.5).  
disease resistance: Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520524  
origin: France.  
cultivar: FR 85-5.  
pedigree: L 29/2/TOP/ROAZON SIB(9.8).  
disease resistance: Leaf rust.  
Yellow (stripe) rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520525  
origin: France.  
cultivar: FR 85-6.  
disease resistance: Leaf rust.  
Yellow (stripe) rust.  
Powdery mildew.  
Spring Annual.  
Cultivated.  
Seed.

PI 520526  
origin: United States.  
cultivar: ND 600.  
disease resistance: Leaf rust.  
Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520527  
origin: United States.  
cultivar: ND 616.  
pedigree: ND 517-2/3/OLAF/2/WALDRON*2/AGENT.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520528  
origin: United States.  
cultivar: ND 617.  
pedigree: LEN/PI 166308/LEN.  
disease resistance: Stem rust.  
Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520529  
origin: United States.  
cultivar: ND 620.  
pedigree: MN 7378/2/ND 517*4/SD 69103.  
disease resistance: Stem rust.  
Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520530  
origin: United States.  
cultivar: ND 621.  
pedigree: ND 586 SIB/2/ND 499*2/WELLS.  
disease resistance: Stem rust.  
Leaf rust.  
Spring Annual.  
Cultivated.  
Seed.

PI 520531  
origin: Canada.  
cultivar: SWS 15.  
pedigree: I3IBWSN 276 C.  
disease resistance: Stem rust.  
Spring Annual.  
Cultivated.  
Seed.
PI 520489 to 520596-continued


PI 520489 to 520596-continued


PI 520489 to 520596-continued

PI 520555  
origin: Nepal.  
cultivar: ALONDRA SIB.  
Cultivated. Seed.

PI 520556  
origin: Nepal.  
Cultivated. Seed.

PI 520557  
origin: Nepal.  
cultivar: BOBWHITE SIB, CM 33202-H-4M-1Y-95B-OY.  
disease resistance: Leaf rust. Spring Annual. 
Cultivated. Seed.

PI 520558  
origin: Soviet Union.  
cultivar: CELINNAJA.21.54045.  
Cultivated. Seed.

PI 520559  
origin: Pakistan.  
cultivar: CM 40577-14Y-1Y-3M-OY.  
Cultivated. Seed.

PI 520560  
origin: Pakistan.  
cultivar: CM 43903-H-2Y-1M-3Y-2M-1Y-OB.  
pedigree: V 81612.KAVAZ/TORIM 73/2/POTAM S70/ANAHUAC.  
Cultivated. Seed.

PI 520561  
origin: Chile.  
cultivar: A 16345-6P-3P-6P-2P.  
Cultivated. Seed.

PI 520562  
origin: Chile.  
cultivar: CM 46725-3P-1P-3P-2P.  
Cultivated. Seed.

PI 520563  
origin: Chile.  
cultivar: A 16894-2P-2P-3P.  
Cultivated. Seed.

PI 520564  
origin: Chile.  
pedigree: CIANO SIB/3/LERMA ROJO/SONORA 64/2/NAPO 63.  
Cultivated. Seed.
PI 520565  
**origin:** Chile.  **cultivar:** CM 49923-5P-1P-1P, PLA 2883.  
**pedigree:** FYNEN SIB/PAVON SIB.  **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520566  
**origin:** Chile.  **cultivar:** CD 9545-10P-1P-1P-1P.  

PI 520567  
**origin:** Chile.  **cultivar:** ALIFEN(DURUM).  **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520568  
**origin:** Chile.  **cultivar:** CD 10506-2P-1P-1P-1P.  
**pedigree:** PARANA/PINGUINO SIB(F1)/2/MAGHREBI SIB, PLAC 4481(DURUM).  **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520569  
**origin:** Chile.  **cultivar:** CD 10581-2P-2P-1P-3P.  
**pedigree:** GANSO SIB/CAPELLI ETHIOPIA/2/LD 357 ENANO/3/TEHUACAN(F1)/4/ PINGUINO SIB, PLA 5281(DURUM).  **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520570  
**origin:** Chile.  **cultivar:** A 17752-8P-2P.  **pedigree:** QUILAFEN/3/21563/ANHINGA/2/FLAMINGO, PLAC 383(DURUM).  **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520571  
**origin:** Chile.  **cultivar:** CM 9799-126M-2M-5Y-OM.  
**pedigree:** CHAGUAL INIA,21563/ANHINGA SIB/2/FLAMINGO SIB. (DURUM).  **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520572  
**origin:** Chile.  **cultivar:** T 12787-T-2P-1T.  **pedigree:** NAINARI/4/TIMSTEIN/THATCHER/2/SONORA 64/3/YAQUI 50 ENANO/5/ GABOTO/6/HEINES 110/7/TEMU 116-75, TEMU 138-83.  **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520573  
**origin:** Chile.  **cultivar:** T 13753-T-3P-1T.  **pedigree:** TORO SIB/NARINO 59/2/BUDIFEN/4/AURORA/3/KALYANSONA/BLUEBIRD /2/WOODPECKER SIB, TEMU 153-83.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520574  
**origin:** Chile.  **cultivar:** T 15007-T-1T.  **pedigree:** VEERY SIB/TEMU 31-78, TEMU 188-83.  **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
PI 520575  origin: Chile.  
cultivar: T 15105-T-2P-1T.  
disease resistance: Yellow (stripe) rust.  

PI 520576  origin: Chile.  
cultivar: T 15105-T-3P-2T.  
disease resistance: Yellow (stripe) rust.  

PI 520577  origin: Chile.  
cultivar: T 15120-T-5P-1T.  
disease resistance: Yellow (stripe) rust.  

PI 520578  origin: Chile.  
cultivar: T 15120-T-5P-2T.  
disease resistance: Yellow (stripe) rust.  

PI 520579  origin: United States.  
cultivar: CHINESE SR 32 AS.  
disease resistance: Stem rust.  

PI 520580  origin: United States.  
cultivar: LR 1 LR 2D(WI).  
pedigree: MALAKOF/*8WICHITA/2/LOROS/*8WICHITA.KS 78R5.  
disease resistance: Leaf rust.  

PI 520581  origin: United States.  
cultivar: LR 2A LR 3(WI).  
disease resistance: Leaf rust.  

PI 520582  origin: United States.  
cultivar: COLLAFEN CROSS.  
disease resistance: Powdery mildew.  

PI 520583  origin: Chile.  
cultivar: T 15441-OT-9T-lT, CAR 2884.  
pedigree: RIEBESEL 47-51/MARQUEFEN.  
disease resistance: Yellow (stripe) rust.  

PI 520584  origin: Chile.  
cultivar: T 15516-OT-10T-2T, CAR 2910.  
pedigree: TALAFEN/MARQUEFEN.  
disease resistance: Yellow (stripe) rust.  

PI 520585  origin: Chile.  
cultivar: T 15635-OT-4T-1T, CAR 2920.  
pedigree: CAR 2915/BUDIFEN.  
disease resistance: Yellow (stripe) rust.  
PI 520489 to 520596-continued

PI 520586  
**origin:** Chile.  
**cultivar:** T 14133-T-T-1T, TEMU 72-83.  
**pedigree:** TEMU 33-78.  
**disease resistance:** Yellow (stripe) rust.  
**Winter Annual.**  
**Cultivated.**  
**Seed.**

PI 520587  
**origin:** South Africa.  
**cultivar:** HOOPVOL/CI 297001, W 299.  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual.**  
**Cultivated.**  
**Seed.**

PI 520588  
**origin:** Chile.  
**cultivar:** T 11269-T-2H, V 6012-H84.  
**pedigree:** PAVON SIB/BUDIFEN.  
**disease resistance:** Yellow (stripe) rust.  
**Winter Annual.**  
**Cultivated.**  
**Seed.**

PI 520589  
**origin:** Chile.  
**cultivar:** A 13206-6P-1P, V 6031-H84.  
**pedigree:** AFRICA/3/MAYO 48/VOGEL 8316/2/MEXIFEN.  
**disease resistance:** Yellow (stripe) rust.  
**Winter Annual.**  
**Cultivated.**  
**Seed.**

PI 520590  
**origin:** United Kingdom.  
**cultivar:** 335-1-19.  
**pedigree:** QY 7-73-2-8, 1356-54.  
**disease resistance:** Yellow (stripe) rust.  
**Powdery mildew.**  
**Winter Annual.**  
**Cultivated.**  
**Seed.**

PI 520591  
**origin:** United Kingdom.  
**cultivar:** WEMBLEY.  
**disease resistance:** Powdery mildew.  
**Winter Annual.**  
**Cultivated.**  
**Seed.**

PI 520592  
**origin:** Bulgaria.  
**cultivar:** AURORA/TP 114-65A/2/13A, TR 527-117.  
**disease resistance:** Leaf rust.  
**Winter Annual.**  
**Cultivated.**  
**Seed.**

PI 520593  
**origin:** Hungary.  
**cultivar:** D 12.  
**disease resistance:** Powdery mildew.  
**Winter Annual.**  
**Cultivated.**  
**Seed.**

PI 520594  
**origin:** Bulgaria.  
**cultivar:** ID 779-11.  
**pedigree:** NS 171-2/11-33-1140/2/BURG 2.  
**disease resistance:** Powdery mildew.  
**Winter Annual.**  
**Cultivated.**  
**Seed.**

PI 520595  
**origin:** United States.  
**cultivar:** SD 2980(SR 5,6,WRD).  
**pedigree:** BUTTE*2/MN 7125, SD 2980.  
**disease resistance:** Stem and leaf rust.  
**Spring Annual.**  
**Cultivated.**  
**Seed.**

PI 520596  
**origin:** Chile.  
**cultivar:** T 14133-T-T-1T, TEMU 7983.  
**pedigree:** CMH 72.428/ZARAGOZA 75/2/MELIFEN.  
**disease resistance:** Yellow (stripe) rust.  
**Spring Annual.**  
**Cultivated.**  
**Seed.**
PI 520597. Medicago sativa L. FABACEAE Alfalfa

Donated by: Sorensen, D.L., USDA-ARS, Dept. of Agronomy, Kansas State Univ., Throckmorton Hall, Manhattan, Kansas, United States.
remarks: Joint contribution of USDA-ARS and the Kansas Agricultural Experiment Station. Received June 16, 1988.

PI 520598. Cajanus cajan (L.) Millsp. FABACEAE Pigeon pea

Donated by: Saxena, K.B., ICRISAT, Patancheru P.O., Andhra Pradesh, India. Received June 16, 1988.
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Acronyms

For space conservation and consistency in identifying locations, the following acronyms have been used in Plant Inventory No. 197:

ARS - Agricultural Research Service (U.S. Department of Agriculture)

CENARGEN - Centro Nacional de Recursos Geneticos (Brazil)

CIMMYT - Centro Internacional de Mejoramiento de Mejoramiento de Maiz y Trigo (Mexico)

FAO - Food and Agriculture Organization of the United Nations

IBPGR - International Board for Plant Genetic Resources

ICRISAT - International Crops Research Institute for Semi-Arid Tropics (India)

INTA - Instituto Nacional de Tecnologia Agropecuaria (Argentina)

ORSTOM - Office de la Recherche Scientifique et Technique d'Outre Mer (France)

SCS - Soil Conservation Service (U.S. Department of Agriculture)

USAID - U.S. Agency for International Development

VIR - N.I. Vavilov Institute of Plant Industry (USSR)