



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)



U. S. Department of Agriculture, ARS:  
Nat'l. Plant Germplasm Quarantine  
11601 Old Pond Drive  
Glenn Dale, Maryland 20769-9158



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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.

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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:** Mbiliior 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:** Mbiliior 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.

PI 514278 to 514600-continued

- PI 514282 donor id: Sg. 1661. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 32. other id: NSL 167530. locality: Gas Tiakatal village. remarks: Race Guinea. Days in growing cycle 85-90. Cultivated. Seed.
- PI 514283 donor id: Sg. 1663. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 34. other id: NSL 167295. locality: Lagbar village. remarks: Race Durra. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514284 donor id: Sg. 1664. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 36. other id: NSL 167531. locality: Lagbar village. remarks: Race Guinea. Days in growing cycle 80-90. Cultivated. Seed.
- PI 514285 donor id: Sg. 1665. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 37. other id: NSL 167296. locality: Yare Lao village. remarks: Race Durra. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514286 donor id: Sg. 1666. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 38. other id: NSL 167297. locality: Yare Lao village. remarks: Race Durra. Days in growing cycle 90. Cultivated. Seed.
- PI 514287 donor id: Sg. 1667. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 40. other id: NSL 167298. locality: Gueye Kadar village. remarks: Race Durra. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514288 donor id: Sg. 1668. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 46. other id: NSL 167299. locality: Meri village. remarks: Race Durra. Days in growing cycle 90. Cultivated. Seed.
- PI 514289 donor id: Sg. 1669. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 53. other id: NSL 167532. locality: Matam village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514290 donor id: Sg. 1674. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 61. other id: NSL 167533. locality: Patouki village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514291 donor id: Sg. 1676. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 65. other id: NSL 167534. locality: Belel village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514292 donor id: Sg. 1677. origin: Senegal. local name: Saban. collected: 1976. collector id: SL 67. other id: NSL 167300. locality: Namari village. remarks: Race Durra. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514293 donor id: Sg. 1678. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 68. other id: NSL 167535. locality: Namari village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514294 donor id: Sg. 1679. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 69. other id: NSL 167536. locality: Fete - Fourou village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514295 donor id: Sg. 1680. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 71. other id: NSL 167537. locality: Fete - Bowe village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514296 donor id: Sg. 1681. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 74. other id: NSL 167538. locality: Mboune village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514297 donor id: Sg. 1682. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 76. other id: NSL 167539. locality: Sivi - Abe village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514298 donor id: Sg. 1683. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 78. other id: NSL 167540. locality: Tekodie village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514299 donor id: Sg. 1684. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 80. other id: NSL 167541. locality: Ouro - Mamound village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514300 donor id: Sg. 1685. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 83. other id: NSL 167542. locality: Kouruo - Karane village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514301 donor id: Sg. 1686. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 85. other id: NSL 167543. locality: Ouro - Seano village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514302 donor id: Sg. 1687. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 87. other id: NSL 167544. locality: Paraoual village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514303 donor id: Sg. 1688. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 89. other id: NSL 167545. locality: Nhar village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514304 donor id: Sg. 1689. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 91. other id: NSL 167546. locality: Toubere - Bafal village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514305 donor id: Sg. 1690. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 93. other id: NSL 167547. locality: Dinndedie village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514306 donor id: Sg. 1691. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 95. other id: NSL 167548. locality: Pantagniede village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514307 donor id: Sg. 1692. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 97. other id: NSL 167549. locality: Babinguel village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514308 donor id: Sg. 1693. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 99. other id: NSL 167550. locality: Madje village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514309 donor id: Sg. 1694. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 100. other id: NSL 167551. locality: Madje village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514310 donor id: Sg. 1695. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 102. other id: NSL 167552. locality: Vindediabi village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514311 donor id: Sg. 1696. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 105. other id: NSL 167553. locality: Ndia village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514312 donor id: Sg. 1697. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 107. other id: NSL 167554. locality: Doude - Bague village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514313 donor id: Sg. 1698. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 110. other id: NSL 167555. locality: Longue - Nodi village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514314 donor id: Sg. 1699. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 112. other id: NSL 167556. locality: Oura - Amat village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514315 donor id: Sg. 1700. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 114. other id: NSL 167557. locality: Ganguel - Maka village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514316 donor id: Sg. 1701. origin: Senegal. local name: Nieniko Sambo Marr. collected: 1976. collector id: SL 117. other id: NSL 167558. locality: Diamoungel village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514317 donor id: Sg. 1702. origin: Senegal. local name: Nieniko Harri. collected: 1976. collector id: SL 118. other id: NSL 167559. locality: Diamoungel village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514318 donor id: Sg. 1703. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 120. other id: NSL 167560. locality: Orkadiere village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514319 donor id: Sg. 1704. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 121. other id: NSL 167561. locality: Orkadiere village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514320 donor id: Sg. 1705. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 123. other id: NSL 167562. locality: Anndiare village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514321 donor id: Sg. 1707. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 125. other id: NSL 167563. locality: Kanel village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514322 donor id: Sg. 1708. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 126. other id: NSL 167564. locality: Kanel village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514323 donor id: Sg. 1709. origin: Senegal. local name: Same. collected: 1976. collector id: SL 127. other id: NSL 167301. locality: Kanel village. remarks: Race Durra. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514324 donor id: Sg. 1710. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 128. other id: NSL 167302. locality: Kanel village. remarks: Race Durra. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514325 donor id: Sg. 1713. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 132. other id: NSL 167565. locality: Ogo village. remarks: Race Guinea. Days in growing cycle 80-90. Cultivated. Seed.
- PI 514326 donor id: Sg. 1715. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 134. other id: NSL 167566. locality: Ogo village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.



PI 514278 to 514600-continued

- 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.

PI 514278 to 514600-continued

- PI 514336 donor id: Sg. 1732. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 183. other id: NSL 167573. locality: Karang village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514337 donor id: Sg. 1734. origin: Senegal. local name: Bassi Tourka. collected: 1976. collector id: SL 185. other id: NSL 167574. locality: Karang village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514338 donor id: Sg. 1735. origin: Senegal. local name: Bassi Tourka. collected: 1976. collector id: SL 189. other id: NSL 167575. locality: Ndiaye Kounda village. remarks: Race Guinea. Cultivated. Seed.
- PI 514339 donor id: Sg. 1736. origin: Senegal. local name: Bassi Yathiar. collected: 1976. collector id: SL 190. other id: NSL 167576. locality: Ndiaye Kounda village. remarks: Race Guinea. Cultivated. Seed.
- PI 514340 donor id: Sg. 1737. origin: Senegal. local name: Bassi Tourka. collected: 1976. collector id: SL 192. other id: NSL 167577. locality: Saboya village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514341 donor id: Sg. 1738. origin: Senegal. local name: Bassi Yathiar. collected: 1976. collector id: SL 194. other id: NSL 167578. locality: Saboya village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514342 donor id: Sg. 1739. origin: Senegal. local name: Bassi Tin. collected: 1976. collector id: SL 195. other id: NSL 167579. locality: Saboya village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514343 donor id: Sg. 1740. origin: Senegal. local name: Bassi Kinte. collected: 1976. collector id: SL 196. other id: NSL 167580. locality: Saboya village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514344 donor id: Sg. 1741. origin: Senegal. local name: Bassi Gaoya. collected: 1976. collector id: SL 200. other id: NSL 167581. locality: Keur Moussa Drame village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514345 donor id: Sg. 1744. origin: Senegal. local name: Bassi Kaba. collected: 1976. collector id: SL 204. other id: NSL 167582. locality: Keur Moussa Drame village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514346 donor id: Sg. 1745. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 205. other id: NSL 167583. locality: Keur Moussa Drame village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514347 donor id: Sg. 1746. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 207. other id: NSL 167584. locality: Tiarene village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514348 donor id: Sg. 1747. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 209. other id: NSL 167585. locality: Segre village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514349 donor id: Sg. 1748. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 213. other id: NSL 167586. locality: Dagabiram village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514350 donor id: Sg. 1752. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 216. other id: NSL 167587. locality: Nganda village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514351 donor id: Sg. 1753. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 218. other id: NSL 167588. locality: Dioukoul village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514352 donor id: Sg. 1754. origin: Senegal. local name: Congossane. collected: 1976. collector id: SL 220. other id: NSL 167589. locality: Pate Tiangaye village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514353 donor id: Sg. 1755. origin: Senegal. local name: Congossane. collected: 1976. collector id: SL 222. other id: NSL 167590. locality: Ngueye Diaraye village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514354 donor id: Sg. 1757. origin: Senegal. local name: Bassi Tchangal. collected: 1976. collector id: SL 225. other id: NSL 167591. locality: Kahel village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514355 donor id: Sg. 1758. origin: Senegal. local name: Bassi Tin. collected: 1976. collector id: SL 226. other id: NSL 167592. locality: Kahel village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514356 donor id: Sg. 1759. origin: Senegal. local name: Bassi Kinte. collected: 1976. collector id: SL 230. other id: NSL 167593. locality: Diam Diam village. remarks: Race Guinea. Days in growing cycle 120-150. Cultivated. Seed.
- PI 514357 donor id: Sg. 1760. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 231. other id: NSL 167306. locality: Diam Diam village. remarks: Race Durra. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514358 donor id: Sg. 1761. origin: Senegal. local name: Congossane. collected: 1976. collector id: SL 235. other id: NSL 167594. locality: Sorokone village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514359 donor id: Sg. 1763. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 239. other id: NSL 167595. locality: Tiel village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514360 donor id: Sg. 1764. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 240. other id: NSL 167596. locality: Tiel village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514361 donor id: Sg. 1765. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 241. other id: NSL 167597. locality: Velingara village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514362 donor id: Sg. 1766. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 242. other id: NSL 167598. locality: Patakour village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514363 donor id: Sg. 1767. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 244. other id: NSL 167599. locality: Patakour village. remarks: Race Guinea. Days in growing cycle 120-140. Cultivated. Seed.
- PI 514364 donor id: Sg. 1773. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 246. other id: NSL 167600. locality: Loumbi village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514365 donor id: Sg. 1768. origin: Senegal. local name: Bassi Yama. collected: 1976. collector id: SL 248. other id: NSL 167601. locality: Touba Loumbi village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514366 donor id: Sg. 1769. origin: Senegal. local name: Congossane. collected: 1976. collector id: SL 250. other id: NSL 167602. locality: Touba Loumbi village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514367 donor id: Sg. 1770. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 251. other id: NSL 167307. locality: Touba Loumbi village. remarks: Race Durra. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514368 donor id: Sg. 1771. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 254. other id: NSL 167603. locality: Payor village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514369 donor id: Sg. 1772. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 255. other id: NSL 167604. locality: Payor village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514370 donor id: Sg. 1774. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 257. other id: NSL 167605. locality: Sil village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514371 donor id: Sg. 1775. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 259. other id: NSL 167606. locality: Lofe village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514372 donor id: Sg. 1776. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 260. other id: NSL 167607. locality: Koutia Gaedi. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514373 donor id: Sg. 1777. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 263. other id: NSL 167608. locality: Malem Niani village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514374 donor id: Sg. 1778. origin: Senegal. local name: Congossane. collected: 1976. collector id: SL 265. other id: NSL 167609. locality: Mereto village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514375 donor id: Sg. 1779. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 267. other id: NSL 167610. locality: Koussalane village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514376 donor id: Sg. 1780. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 268. other id: NSL 167611. locality: Koussalane village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514377 donor id: Sg. 1781. origin: Senegal. local name: Bassi Tchangi. collected: 1976. collector id: SL 270. other id: NSL 167612. locality: Maka village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514378 donor id: Sg. 1782. origin: Senegal. local name: Bassi Tourka. collected: 1976. collector id: SL 271. other id: NSL 167613. locality: Maka village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514379 donor id: Sg. 1783. origin: Senegal. local name: Bassi Nebamaro. collected: 1976. collector id: SL 273. other id: NSL 167614. locality: Maka village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514380 donor id: Sg. 1784. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 274. other id: NSL 167615. locality: Maka village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514381 donor id: Sg. 1785. origin: Senegal. local name: Congossane. collected: 1976. collector id: SL 276. other id: NSL 167616. locality: Sintiou Maniki village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514382 donor id: Sg. 1786. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 277. other id: NSL 167617. locality: Sintiou Maniki village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514383 donor id: Sg. 1787. origin: Senegal. local name: Sambatako. collected: 1976. collector id: SL 278. other id: NSL 167618. locality: Sintiou Maniki village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514384 donor id: Sg. 1788. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 280. other id: NSL 167619. locality: Fadiakounda village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514385 donor id: Sg. 1789. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 283. other id: NSL 167620. locality: Sara Koli village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514386 donor id: Sg. 1790. origin: Senegal. local name: Bassi Bailadji. collected: 1976. collector id: SL 284. other id: NSL 167621. locality: Sara Koli village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514387 donor id: Sg. 1791. origin: Senegal. local name: Bassi Nebamaro. collected: 1976. collector id: SL 285. other id: NSL 167622. locality: Sara Koli village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514388 donor id: Sg. 1792. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 286. other id: NSL 167623. locality: Noumayel village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514389 donor id: Sg. 1794. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 288. other id: NSL 167624. locality: Noumayel village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514390 donor id: Sg. 1796. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 291. other id: NSL 167625. locality: Sarediemi village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514391 donor id: Sg. 1798. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 294. other id: NSL 167626. locality: Tiorouk village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514392 donor id: Sg. 1799. origin: Senegal. local name: Nieniko Sobak. collected: 1976. collector id: SL 297. other id: NSL 167627. locality: Mabailadji village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514393 donor id: Sg. 1800. origin: Senegal. local name: Amadi Bamba. collected: 1976. collector id: SL 300. other id: NSL 167628. locality: Diare Nbolo village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514394 donor id: Sg. 1801. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 303. other id: NSL 167629. locality: Kolomba village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514395 donor id: Sg. 1802. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 304. other id: NSL 167630. locality: Kolomba village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.



PI 514278 to 514600-continued

- PI 514396 donor id: Sg. 1803. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 306. other id: NSL 167631. locality: Ouro Binta village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514397 donor id: Sg. 1804. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 307. other id: NSL 167632. locality: Ouro Binta village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514398 donor id: Sg. 1805. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 308. other id: NSL 167633. locality: Ouro Binta village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514399 donor id: Sg. 1806. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 310. other id: NSL 167634. locality: Sintiou Bokar village. remarks: Race Guinea. Days in growing cycle 90-130. Cultivated. Seed.
- PI 514400 donor id: Sg. 1807. origin: Senegal. local name: Nieniko Harri. collected: 1976. collector id: SL 311. other id: NSL 167635. locality: Toulekeddi village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514401 donor id: Sg. 1808. origin: Senegal. local name: Nieniko Harri. collected: 1976. collector id: SL 312. other id: NSL 167636. locality: Oulodou village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514402 donor id: Sg. 1809. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 314. other id: NSL 167637. locality: Golmi village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514403 donor id: Sg. 1810. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 315. other id: NSL 167638. locality: Golmi village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514404 donor id: Sg. 1811. origin: Senegal. local name: Nagbani. collected: 1976. collector id: SL 316. other id: NSL 167308. locality: Golmi village. remarks: Race Durra. Days in growing cycle 110-120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514405 donor id: Sg. 1812. origin: Senegal. local name: Guadiaba. collected: 1976. collector id: SL 317. other id: NSL 167309. locality: Golmi village. remarks: Race Durra. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514406 donor id: Sg. 1813. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 318. other id: NSL 167310. locality: Golmi village. remarks: Race Durra. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514407 donor id: Sg. 1815. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 320. other id: NSL 167311. locality: Sarre village. remarks: Race Durra. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514408 donor id: Sg. 1816. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 321. other id: NSL 167639. locality: Sarre village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514409 donor id: Sg. 1817. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 322. other id: NSL 167640. locality: Naye village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514410 donor id: Sg. 1818. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 323. other id: NSL 167641. locality: Youpe-Amadi village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514411 donor id: Sg. 1819. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 324. other id: NSL 167642. locality: Youpe-Amadi village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514412 donor id: Sg. 1820. origin: Senegal. local name: Nieniko Yabiti. collected: 1976. collector id: SL 326. other id: NSL 167643. locality: Koussane village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514413 donor id: Sg. 1821. origin: Senegal. local name: Nieniko Patay. collected: 1976. collector id: SL 327. other id: NSL 167644. locality: Koussane village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514414 donor id: Sg. 1822. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 328. other id: NSL 167645. locality: Koussane village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514415 donor id: Sg. 1823. origin: Senegal. local name: Fela. collected: 1976. collector id: SL 329. other id: NSL 167312. locality: Koussane village. remarks: Race Durra. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514416 donor id: Sg. 1824. origin: Senegal. local name: Nieniko Patay. collected: 1976. collector id: SL 330. other id: NSL 167646. locality: Goulounga village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514417 donor id: Sg. 1825. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 331. other id: NSL 167647. locality: Goulounga village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514418 donor id: Sg. 1826. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 332. other id: NSL 167648. locality: Tomboura village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514419 donor id: Sg. 1827. origin: Senegal. local name: Gadyabo. collected: 1976. collector id: SL 333. other id: NSL 167649. locality: Tomboura village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514420 donor id: Sg. 1829. origin: Senegal. local name: Dambaye. collected: 1976. collector id: SL 334. other id: NSL 167650. locality: Tomboura village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514421 donor id: Sg. 1830. origin: Senegal. local name: Tchenikora. collected: 1976. collector id: SL 335. other id: NSL 167651. locality: Tomboura village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514422 donor id: Sg. 1831. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 337. other id: NSL 167652. locality: Goulounga village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514423 donor id: Sg. 1832. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 339. other id: NSL 167653. locality: Dinndoudi village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514424 donor id: Sg. 1833. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 340. other id: NSL 167654. locality: Dalafi village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514425 donor id: Sg. 1834. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 341. other id: NSL 167655. locality: Dalafi village. remarks: Race Guinea. Days in growing cycle 90-110. Cultivated. Seed.
- PI 514426 donor id: Sg. 1835. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 343. other id: NSL 167656. locality: Tonkouto village. remarks: Race Guinea. Days in growing cycle 90-110. Cultivated. Seed.
- PI 514427 donor id: Sg. 1836. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 344. other id: NSL 167657. locality: Tonkouto village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514428 donor id: Sg. 1837. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 346. other id: NSL 167658. locality: Bokolako village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514429 donor id: Sg. 1838. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 348. other id: NSL 167659. locality: Gouta village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514430 donor id: Sg. 1839. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 349. other id: NSL 167660. locality: Gouta village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514431 donor id: Sg. 1841. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 353. other id: NSL 167661. locality: Goundinseyni village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514432 donor id: Sg. 1842. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 354. other id: NSL 167662. locality: Goundinseyni village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514433 donor id: Sg. 1844. origin: Senegal. local name: Amadi Bamba. collected: 1976. collector id: SL 357. other id: NSL 167663. locality: Bala Foulbe village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514434 donor id: Sg. 1845. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 358. other id: NSL 167664. locality: Bala Foulbe village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514435 donor id: Sg. 1846. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 362. other id: NSL 167665. locality: Lountchi village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514436 donor id: Sg. 1847. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 363. other id: NSL 167666. locality: Lountchi village. remarks: Race Guinea. Days in growing season 90. Cultivated. Seed.
- PI 514437 donor id: Sg. 1848. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 363bis. other id: NSL 167667. locality: Vigue village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514438 donor id: Sg. 1850. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 366. other id: NSL 167668. locality: Dianke Makam village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514439 donor id: Sg. 1852. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 370. other id: NSL 167669. locality: Soudouta village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514440 donor id: Sg. 1853. origin: Senegal. local name: Amadi Bamba. collected: 1976. collector id: SL 373. other id: NSL 167670. locality: Danbakoli village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514441 donor id: Sg. 1854. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 374. other id: NSL 167671. locality: Danbakoli village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514442 donor id: Sg. 1856. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 380. other id: NSL 167672. locality: Doulouyabe village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514443 donor id: Sg. 1858. origin: Senegal. local name: Sameri. collected: 1976. collector id: SL 382. other id: NSL 167313. locality: Banbadinka village. remarks: Race Durra. Days in growing cycle 120. Cultivated. Seed.
- PI 514444 donor id: Sg. 1859. origin: Senegal. local name: Bodya. collected: 1976. collector id: SL 383. other id: NSL 167674. locality: Niaoule village. remarks: Race Guinea. Days in growing cycle 140-150. Cultivated. Seed.
- PI 514445 donor id: Sg. 1860. origin: Senegal. local name: Bodya. collected: 1976. collector id: SL 384. other id: NSL 167675. locality: Bira village. remarks: Race Guinea. Days in growing cycle 140-150. Cultivated. Seed.
- PI 514446 donor id: Sg. 1861. origin: Senegal. local name: Nienikel. collected: 1976. collector id: SL 385. other id: NSL 167676. locality: Bira village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514447 donor id: Sg. 1862. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 386. other id: NSL 167677. locality: Dialamata village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514448 donor id: Sg. 1863. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 388. other id: NSL 167678. locality: Dialakoto village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514449 donor id: Sg. 1864. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 390. other id: NSL 167679. locality: Dienoundiala village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514450 donor id: Sg. 1865. origin: Senegal. local name: Bodya. collected: 1976. collector id: SL 392. other id: NSL 167680. locality: Gamon village. remarks: Race Guinea. Days in growing cycle 140-160. Cultivated. Seed.
- PI 514451 donor id: Sg. 1866. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 393. other id: NSL 167681. locality: Gamon village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514452 donor id: Sg. 1867. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 394. other id: NSL 167682. locality: Baily village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514453 donor id: Sg. 1868. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 396. other id: NSL 167683. locality: Baily village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514454 donor id: Sg. 1871. origin: Senegal. local name: Amadi Bamba. collected: 1976. collector id: SL 399. other id: NSL 167684. locality: Kayan village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514455 donor id: Sg. 1872. origin: Senegal. local name: Makabe. collected: 1976. collector id: SL 400. other id: NSL 168799. locality: Kayan village. remarks: Race Caudatum. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514456 donor id: Sg. 1873. origin: Senegal. collected: 1976. collector id: SL 403. other id: NSL 167685. locality: Bransan village. remarks: Race Guinea. Cultivated. Seed.
- PI 514457 donor id: Sg. 1874. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 405. other id: NSL 167686. locality: Bransan village. remarks: Race Guinea. Days in growing cycle 140-160. Cultivated. Seed.
- PI 514458 donor id: Sg. 1875. origin: Senegal. local name: Gadyabo. collected: 1976. collector id: SL 406. other id: NSL 168800. locality: Bransan village. remarks: Race Caudatum. Days in growing cycle 140-160. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514459 donor id: Sg. 1876. origin: Senegal. local name: Mekanio Sune. collected: 1976. collector id: SL 407. other id: NSL 169228. locality: Bransan village. remarks: Race Bicolor. Cultivated. Seed.
- PI 514460 donor id: Sg. 1877. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 408. other id: NSL 167687. locality: Kossanto village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514461 donor id: Sg. 1878. origin: Senegal. local name: Makabe. collected: 1976. collector id: SL 410. other id: NSL 168801. locality: Kossanto village. remarks: Race Caudatum. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514462 donor id: Sg. 1881. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 413. other id: NSL 167688. locality: Tourakoto village. remarks: Race Guinea. Days in growing cycle 140-150. Cultivated. Seed.
- PI 514463 donor id: Sg. 1882. origin: Senegal. local name: Makabe. collected: 1976. collector id: SL 415. other id: NSL 168802. locality: Tourakoto village. remarks: Race Caudatum. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514464 donor id: Sg. 1883. origin: Senegal. local name: Gadyabo. collected: 1976. collector id: SL 417. other id: NSL 168803. locality: Missira village. remarks: Race Caudatum. Days in growing cycle 140-160. Cultivated. Seed.
- PI 514465 donor id: Sg. 1885. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 420. other id: NSL 167689. locality: Kassangueri village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514466 donor id: Sg. 1886. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 422. other id: NSL 167690. locality: Kondokhou village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514467 donor id: Sg. 1887. origin: Senegal. local name: Nio. collected: 1976. collector id: SL 424. other id: NSL 167691. locality: Bembou village. remarks: Race Guinea. Days in growing cycle 140-160. Cultivated. Seed.



PI 514278 to 514600-continued

- PI 514468 donor id: Sg. 1888. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 426. other id: NSL 167692. locality: Bembou village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514469 donor id: Sg. 1890. origin: Senegal. local name: Nio. collected: 1976. collector id: SL 430. other id: NSL 167693. locality: Nafadzi village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514470 donor id: Sg. 1895. origin: Senegal. local name: Nio. collected: 1976. collector id: SL 431. other id: NSL 167694. locality: Samekouta village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514471 donor id: Sg. 1891. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 433. other id: NSL 167695. locality: Satadougou Bafe village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514472 donor id: Sg. 1892. origin: Senegal. local name: Nio. collected: 1976. collector id: SL 434. other id: NSL 167696. locality: Satadougou Bafe village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514473 donor id: Sg. 1893. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 435. other id: NSL 167697. locality: Fadecounda village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514474 donor id: Sg. 1894. origin: Senegal. local name: Nio. collected: 1976. collector id: SL 436. other id: NSL 167698. locality: Fadecounda village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514475 donor id: Sg. 1899. origin: Senegal. local name: Nio. collected: 1976. collector id: SL 437. other id: NSL 167699. locality: Badon village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514476 donor id: Sg. 1900. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 438. other id: NSL 167700. locality: Badon village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514477 donor id: Sg. 1901. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 439. other id: NSL 167701. locality: Badon village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514478 donor id: Sg. 1896. origin: Senegal. local name: Nio. collected: 1976. collector id: SL 443. other id: NSL 167702. locality: Tomborokoto village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514479 donor id: Sg. 1897. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 444. other id: NSL 167703. locality: Tomborokoto village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514480 donor id: Sg. 1904. origin: Senegal. local name: Binda Binin. collected: 1976. collector id: SL 446. other id: NSL 168859. locality: Bantala village. remarks: Race Guinea Caudatum. Days in growing cycle 150. Cultivated. Seed.
- PI 514481 donor id: Sg. 1906. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 449. other id: NSL 167704. locality: Bantala village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514482 donor id: Sg. 1907. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 450bis. other id: NSL 167705. locality: Sangola village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514483 donor id: Sg. 1902. origin: Senegal. local name: Binda. collected: 1976. collector id: SL 451. other id: NSL 168860. locality: Sangola village. remarks: Race Guinea Caudatum. Days in growing cycle 150. Cultivated. Seed.
- PI 514484 donor id: Sg. 1903. origin: Senegal. local name: Binial. collected: 1976. collector id: SL 452. other id: NSL 167706. locality: Sangola village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514485 donor id: Sg. 1910. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 454. other id: NSL 167707. locality: N'Debou village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514486 donor id: Sg. 1911. origin: Senegal. local name: Pabaki. collected: 1976. collector id: SL 455. other id: NSL 167708. locality: N'Debou village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514487 donor id: Sg. 1912. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 456. other id: NSL 167709. locality: Koumefele village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514488 donor id: Sg. 1913. origin: Senegal. local name: Mourokio. collected: 1976. collector id: SL 457. other id: NSL 167710. locality: Thiokoye village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514489 donor id: Sg. 1914. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 458. other id: NSL 167711. locality: Thiokoye village. remarks: Race Guinea. Days in growing cycle 90-110. Cultivated. Seed.
- PI 514490 donor id: Sg. 1908. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 460. other id: NSL 167712. locality: Bandafassi village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514491 donor id: Sg. 1915. origin: Senegal. local name: Binda. collected: 1976. collector id: SL 462. other id: NSL 168861. locality: Landieni village. remarks: Race Guinea Caudatum. Days in growing cycle 150. Cultivated. Seed.
- PI 514492 donor id: Sg. 1916. origin: Senegal. local name: Binial. collected: 1976. collector id: SL 463. other id: NSL 167713. locality: Landieni village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514493 donor id: Sg. 1917. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 464. other id: NSL 167714. locality: Dakateli village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514494 donor id: Sg. 1918. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 465. other id: NSL 167715. locality: Dakateli village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514495 donor id: Sg. 1919. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 466. other id: NSL 167716. locality: Tiankoye village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514496 donor id: Sg. 1920. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 467. other id: NSL 167717. locality: Salemata village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514497 donor id: Sg. 1922. origin: Senegal. local name: Digaff. collected: 1976. collector id: SL 469. other id: NSL 168862. locality: Etiolo village. remarks: Race Guinea Caudatum. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514498 donor id: Sg. 1923. origin: Senegal. local name: Dilli Ivoira. collected: 1976. collector id: SL 470. other id: NSL 167718. locality: Etiolo village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514499 donor id: Sg. 1924. origin: Senegal. local name: Anissa. collected: 1976. collector id: SL 471. other id: NSL 169229. locality: Etiolo village. remarks: Race Bicolor. Cultivated. Seed.
- PI 514500 donor id: Sg. 1925. origin: Senegal. local name: Dilli ifechar. collected: 1976. collector id: SL 472. other id: NSL 167719. locality: Etiolo village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514501 donor id: Sg. 1926. origin: Senegal. local name: Yandar. collected: 1976. collector id: SL 473. other id: NSL 167720. locality: Idale village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514502 donor id: Sg. 1927. origin: Senegal. local name: Farim. collected: 1976. collector id: SL 474. other id: NSL 167721. locality: Idale village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514503 donor id: Sg. 1931. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 476. other id: NSL 167722. locality: Sintiou Kolinka village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514504 donor id: Sg. 1930. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 481. other id: NSL 167723. locality: Neteboulou village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514505 donor id: Sg. 1933. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 482. other id: NSL 167724. locality: Medina Gonasse village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514506 donor id: Sg. 1935. origin: Senegal. local name: Bayeri Danieri. collected: 1976. collector id: SL 486. other id: NSL 167725. locality: Linkering village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514507 donor id: Sg. 1936. origin: Senegal. local name: Kinti oufasse. collected: 1976. collector id: SL 487. other id: NSL 167726. locality: Patim Kouta village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514508 donor id: Sg. 1937. origin: Senegal. local name: Kinto Ouolon. collected: 1976. collector id: SL 489. other id: NSL 167727. locality: Patim Kouta village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514509 donor id: Sg. 1938. origin: Senegal. local name: Kinti Oufasse. collected: 1976. collector id: SL 491. other id: NSL 167728. locality: Mori Kounda village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514510 donor id: Sg. 1939. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 492. other id: NSL 167729. locality: Mori Kounda village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514511 donor id: Sg. 1940. origin: Senegal. local name: Bayeri Boderi. collected: 1976. collector id: SL 493. other id: NSL 167730. locality: Kaone village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514512 donor id: Sg. 1941. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 494. other id: NSL 167731. locality: Kaone village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514513 donor id: Sg. 1942. origin: Senegal. local name: Bayeri Danieri. collected: 1976. collector id: SL 495. other id: NSL 167732. locality: Kaone village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514514 donor id: Sg. 1943. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 498. other id: NSL 167733. locality: Bakore village. remarks: Race Guinea. Days in growing cycle 150. Cultivated. Seed.
- PI 514515 donor id: Sg. 1944. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 499. other id: NSL 167734. locality: Bakore village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514516 donor id: Sg. 1945. origin: Senegal. local name: Kinti. collected: 1976. collector id: SL 500. other id: NSL 167735. locality: Bakore village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514517 donor id: Sg. 1946. origin: Senegal. local name: Bayeri Boderi. collected: 1976. collector id: SL 502. other id: NSL 167736. locality: Lerovalo village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514518 donor id: Sg. 1947. origin: Senegal. local name: Mobal. collected: 1976. collector id: SL 503. other id: NSL 167737. locality: Lerovalo village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514519 donor id: Sg. 1948. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 504. other id: NSL 167738. locality: Lerovalo village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514520 donor id: Sg. 1949. origin: Senegal. local name: Diouma. collected: 1976. collector id: SL 505. other id: NSL 167739. locality: Lerovalo village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514521 donor id: Sg. 1953. origin: Senegal. local name: Diouma. collected: 1976. collector id: SL 511. other id: NSL 167740. locality: Badion village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514522 donor id: Sg. 1954. origin: Senegal. local name: Madina Gonasse. collected: 1976. collector id: SL 512. other id: NSL 167741. locality: Badion village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514523 donor id: Sg. 1959. origin: Senegal. local name: Bayeri Boderi. collected: 1976. collector id: SL 517. other id: NSL 167742. locality: Kerevane village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514524 donor id: Sg. 1960. origin: Senegal. local name: Bayeri Danieri. collected: 1976. collector id: SL 518. other id: NSL 167743. locality: Kerevane village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514525 donor id: Sg. 1961. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 519. other id: NSL 167744. locality: Kerevane village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514526 donor id: Sg. 1963. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 522. other id: NSL 167745. locality: Bokonto village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514527 donor id: Sg. 1964. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 524. other id: NSL 167746. locality: Koulinto village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514528 donor id: Sg. 1967. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 527. other id: NSL 167747. locality: Fafakouro village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514529 donor id: Sg. 1968. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 528. other id: NSL 167748. locality: Fafakouro village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514530 donor id: Sg. 1969. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 531. other id: NSL 167749. locality: Medina Yorofoula village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514531 donor id: Sg. 1970. origin: Senegal. local name: Bassi Tchangai. collected: 1976. collector id: SL 532. other id: NSL 167750. locality: Medina Yorofoula village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514532 donor id: Sg. 1971. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 533. other id: NSL 167751. locality: Medina Yorofoula village. remarks: Race Guinea. Days in growing cycle 90. Cultivated. Seed.
- PI 514533 donor id: Sg. 1976. origin: Senegal. local name: Bassi Bomackbi. collected: 1976. collector id: SL 537. other id: NSL 167752. locality: Kohel village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514534 donor id: Sg. 1973. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 538. other id: NSL 167753. locality: Pata village. remarks: Race Guinea. Days in growing cycle 85-90. Cultivated. Seed.
- PI 514535 donor id: Sg. 1974. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 539. other id: NSL 167754. locality: Pata village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514536 donor id: Sg. 1975. origin: Senegal. local name: Kinti. collected: 1976. collector id: SL 541. other id: NSL 167755. locality: Pata village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514537 donor id: Sg. 1977. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 547. other id: NSL 167756. locality: Tieti village. remarks: Race Guinea. Days in growing cycle 90-110. Cultivated. Seed.
- PI 514538 donor id: Sg. 1978. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 548. other id: NSL 167757. locality: Tieti village. remarks: Race Guinea. Days in growing cycle 80-90. Cultivated. Seed.



PI 514278 to 514600-continued

- PI 514539 donor id: Sg. 1979. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 551. other id: NSL 167758. locality: Sillakounda village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514540 donor id: Sg. 1980. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 552. other id: NSL 167759. locality: Sillakounda village. remarks: Race Guinea. Days in growing cycle 80-90. Cultivated. Seed.
- PI 514541 donor id: Sg. 1981. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 554. other id: NSL 167760. locality: Ngoki village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514542 donor id: Sg. 1982. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 555. other id: NSL 167761. locality: Ngoki village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514543 donor id: Sg. 1983. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 556. other id: NSL 167762. locality: Ngoki village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514544 donor id: Sg. 1984. origin: Senegal. local name: Bayeri. collected: 1976. collector id: SL 558. other id: NSL 167763. locality: Koumbakoura village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514545 donor id: Sg. 1985. origin: Senegal. local name: Sambadyabo. collected: 1976. collector id: SL 559. other id: NSL 167764. locality: Koumbakoura village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514546 donor id: Sg. 1986. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 560. other id: NSL 167765. locality: Koumbakoura village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514547 donor id: Sg. 1987. origin: Senegal. local name: Bayeri Boderi. collected: 1976. collector id: SL 565. other id: NSL 167766. locality: Kamboa village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514548 donor id: Sg. 1988. origin: Senegal. local name: Bayeri Danieri. collected: 1976. collector id: SL 566. other id: NSL 167767. locality: Kamboa village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514549 donor id: Sg. 1989. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 567. other id: NSL 167768. locality: Kamboa village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514550 donor id: Sg. 1990. origin: Senegal. local name: Kinti. collected: 1976. collector id: SL 568. other id: NSL 167769. locality: Kamboa village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514551 donor id: Sg. 1992. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 572. other id: NSL 167770. locality: Guiro Yoro village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514552 donor id: Sg. 1993. origin: Senegal. local name: Bayeri Boderi. collected: 1976. collector id: SL 573. other id: NSL 167771. locality: Guiro Yoro village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514553 donor id: Sg. 1995. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 576. other id: NSL 167772. locality: Linkeringto village. remarks: Race Guinea. Days in growing cycle 150-160. Cultivated. Seed.
- PI 514554 donor id: Sg. 1996. origin: Senegal. local name: Bayeri Danieri. collected: 1976. collector id: SL 577. other id: NSL 167773. locality: Linkeringto village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514555 donor id: Sg. 1998. origin: Senegal. local name: Koube Bodaye. collected: 1976. collector id: SL 579. other id: NSL 167774. locality: Linkeringto village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514556 donor id: Sg. 1999. origin: Senegal. local name: Koube Baledje. collected: 1976. collector id: SL 581. other id: NSL 167775. locality: Sare Badio village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514557 donor id: Sg. 2000. origin: Senegal. local name: Koube Bodaye. collected: 1976. collector id: SL 582. other id: NSL 167776. locality: Sare Badio village. remarks: Race Guinea. Days in growing cycle 90-110. Cultivated. Seed.
- PI 514558 donor id: Sg. 2001. origin: Senegal. local name: Otiomp. collected: 1976. collector id: SL 584. other id: NSL 167777. locality: Dianaba village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514559 donor id: Sg. 2002. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 586. other id: NSL 167778. locality: Boussimballo village. remarks: Race Guinea. Days in growing cycle 130-140. Cultivated. Seed.
- PI 514560 donor id: Sg. 2003. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 589. other id: NSL 167779. locality: Diambati village. remarks: Race Guinea. Days in growing cycle 130-140. Cultivated. Seed.
- PI 514561 donor id: Sg. 2004. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 591. other id: NSL 167780. locality: Sare Yoba village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514562 donor id: Sg. 2005. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 592. other id: NSL 167781. locality: Sare Yoba village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514563 donor id: Sg. 2006. origin: Senegal. local name: Kinto Ouolon. collected: 1976. collector id: SL 593. other id: NSL 167782. locality: Diareng village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514564 donor id: Sg. 2007. origin: Senegal. local name: Bambara Basso. collected: 1976. collector id: SL 594. other id: NSL 169230. locality: Diareng village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514565 donor id: Sg. 2010. origin: Senegal. local name: Bamako Basso. collected: 1976. collector id: SL 598. other id: NSL 167783. locality: Diareng village. remarks: Race Guinea. Days in growing cycle 100-110. Cultivated. Seed.
- PI 514566 donor id: Sg. 2012. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 602. other id: NSL 167784. locality: Silame village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514567 donor id: Sg. 2013. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 603. other id: NSL 167785. locality: Silame village. remarks: Race Guinea. Days in growing cycle 130-140. Cultivated. Seed.
- PI 514568 donor id: Sg. 2014. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 604. other id: NSL 167786. locality: Sandiniere village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514569 donor id: Sg. 2015. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 606. other id: NSL 167787. locality: Sandiniere village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514570 donor id: Sg. 2016. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 607. other id: NSL 167788. locality: Tanaf village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514571 donor id: Sg. 2017. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 608. other id: NSL 167789. locality: Tanaf village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514572 donor id: Sg. 2018. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 609. other id: NSL 167790. locality: Tanaf village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514573 donor id: Sg. 2019. origin: Senegal. local name: Nieniko. collected: 1976. collector id: SL 612. other id: NSL 167791. locality: Koutadala village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514574 donor id: Sg. 2020. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 613. other id: NSL 167792. locality: Koutadala village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514575 donor id: Sg. 2023. origin: Senegal. local name: Otiomp. collected: 1976. collector id: SL 620. other id: NSL 167793. locality: Adeane village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514576 donor id: Sg. 2024. origin: Senegal. local name: Otiomp. collected: 1976. collector id: SL 622. other id: NSL 167794. locality: Niaguis village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514577 donor id: Sg. 2028. origin: Senegal. local name: Bassi Tap. collected: 1976. collector id: SL 623. other id: NSL 167795. locality: Sindian village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514578 donor id: Sg. 2029. origin: Senegal. local name: Bassi Kohre. collected: 1976. collector id: SL 623bis. other id: NSL 167796. locality: Sindian village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514579 donor id: Sg. 2030. origin: Senegal. local name: Bassi Tap. collected: 1976. collector id: SL 627. other id: NSL 167797. locality: Diokadou village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514580 donor id: Sg. 2032. origin: Senegal. local name: Bassi Tap. collected: 1976. collector id: SL 629. other id: NSL 167798. locality: Badiana village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514581 donor id: Sg. 2031. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 631. other id: NSL 167799. locality: Diouloulou village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514582 donor id: Sg. 2034. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 633. other id: NSL 167800. locality: Essam village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514583 donor id: Sg. 2035. origin: Senegal. local name: Bassi Koutiri. collected: 1976. collector id: SL 634. other id: NSL 167801. locality: Ndieba village. remarks: Race Guinea. Days in growing cycle 110-120. Cultivated. Seed.
- PI 514584 donor id: Sg. 2036. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 635. other id: NSL 167802. locality: Ndieba village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514585 donor id: Sg. 2037. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 637. other id: NSL 167803. locality: Sansanba village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514586 donor id: Sg. 2038. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 638. other id: NSL 167804. locality: Sansanba village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514587 donor id: Sg. 2039. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 641. other id: NSL 167805. locality: N'Diama village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514588 donor id: Sg. 2025. origin: Senegal. local name: Bassi Tap. collected: 1976. collector id: SL 642. other id: NSL 167806. locality: Tangori village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514589 donor id: Sg. 2026. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 644. other id: NSL 167807. locality: Tangori village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.
- PI 514590 donor id: Sg. 2027. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 645. other id: NSL 167808. locality: Tangori village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514591 donor id: Sg. 2040. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 646. other id: NSL 167809. locality: Silinkine village. remarks: Race Guinea. Days in growing cycle 120. Cultivated. Seed.

PI 514278 to 514600-continued

- PI 514592 donor id: Sg. 2041. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 648. other id: NSL 167810. locality: Silinkine village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514593 donor id: Sg. 2042. origin: Senegal. local name: Koema. collected: 1976. collector id: SL 651. other id: NSL 167811. locality: Bona village. remarks: Race Guinea. Days in growing cycle 90-100. Cultivated. Seed.
- PI 514594 donor id: Sg. 2043. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 652. other id: NSL 167812. locality: Bona village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514595 donor id: Sg. 2044. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 653. other id: NSL 167813. locality: Bona village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514596 donor id: Sg. 2045. origin: Senegal. local name: Kinto. collected: 1976. collector id: SL 657. other id: NSL 167814. locality: Boukiling village. remarks: Race Guinea. Days in growing cycle 120-130. Cultivated. Seed.
- PI 514597 donor id: Sg. 2046. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 660. other id: NSL 167815. locality: Sayinding Naounde village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514598 donor id: Sg. 1749. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 663. other id: NSL 167816. locality: Mbiteyene village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514599 donor id: Sg. 1750. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 665. other id: NSL 167817. locality: Diediena village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.
- PI 514600 donor id: Sg. 1751. origin: Senegal. local name: Bassi Wende. collected: 1976. collector id: SL 667. other id: NSL 167818. locality: Laimingue village. remarks: Race Guinea. Days in growing cycle 130-150. Cultivated. Seed.

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 donor id: Sg. 1722. origin: Senegal. collected: 1976. collector id: SL 157. other id: NSL 169282. locality: Sambadia village. Cultivated. Seed.
- PI 514602 donor id: Sg. 1724. origin: Senegal. local name: N'gdok. collected: 1976. collector id: SL 166. other id: NSL 169283. locality: Thiombi village. remarks: Days in growing cycle 120-130. Cultivated. Seed.
- PI 514603 donor id: Sg. 1725. origin: Senegal. local name: Bassi Tin. collected: 1976. collector id: SL 167. other id: NSL 169284. locality: Thiombi village. remarks: Days in growing cycle 120-130. Cultivated. Seed.
- PI 514604 donor id: Sg. 1726. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 170. other id: NSL 169285. locality: Kamatane village. remarks: Days in growing cycle 110-120. Cultivated. Seed.
- PI 514605 donor id: Sg. 1727. origin: Senegal. local name: Bassi. collected: 1976. collector id: SL 173. other id: NSL 169286. locality: Soum village. remarks: Days in growing cycle 90. Cultivated. Seed.
- PI 514606 donor id: Sg. 1728. origin: Senegal. local name: Bassi Tin. collected: 1976. collector id: SL 177. other id: NSL 169287. locality: Ndiaye-Ndiaye village. remarks: Days in growing cycle 110-120. Cultivated. Seed.
- PI 514607 donor id: Sg. 1857. origin: Senegal. collected: 1976. collector id: SL 380bis. other id: NSL 167673. locality: Doulouyabe village. Cultivated. Seed.
- PI 514608 donor id: Sg. 1898. origin: Senegal. collected: 1976. collector id: SL 445. other id: NSL 169288. locality: Tomborokoto village. Cultivated. Seed.
- PI 514609 donor id: Sg. 1905. origin: Senegal. local name: Bambara Messanga. collected: 1976. collector id: SL 448. other id: NSL 169289. locality: Bantala village. remarks: Days in growing cycle 140-160. Cultivated. Seed.
- PI 514610 donor id: Sg. 1909. origin: Senegal. collected: 1976. collector id: SL 461. other id: NSL 169290. locality: Bandafassi village. Cultivated. Seed.



PI 514601 to 514617-continued

- PI 514611 donor id: Sg. 1932. origin: Senegal. local name: Mobal. collected: 1976. collector id: SL 478. other id: NSL 169291. locality: Sintiou Kolinka village. remarks: Days in growing cycle 120-130. Cultivated. Seed.
- PI 514612 donor id: Sg. 1929. origin: Senegal. local name: Mobal. collected: 1976. collector id: SL 480. other id: NSL 169292. locality: Neteboulou village. remarks: Days in growing cycle 120-130. Cultivated. Seed.
- PI 514613 donor id: Sg. 1934. origin: Senegal. local name: Mobal. collected: 1976. collector id: SL 483. other id: NSL 169293. locality: Medina Gonasse village. remarks: Days in growing cycle 150. Cultivated. Seed.
- PI 514614 donor id: Sg. 1965. origin: Senegal. collected: 1976. collector id: SL 525. other id: NSL 169294. locality: Koulinto village. Cultivated. Seed.
- PI 514615 donor id: Sg. 1972. origin: Senegal. local name: Bassi Nebamaro. collected: 1976. collector id: SL 534. other id: NSL 169295. locality: Medina Yorofoula village. remarks: Days in growing cycle 120. Cultivated. Seed.
- PI 514616 donor id: Sg. 2021. origin: Senegal. local name: Patyanka. collected: 1976. collector id: SL 614. other id: NSL 169296. locality: Samine village. remarks: Days in growing cycle 90. Cultivated. Seed.
- PI 514617 donor id: Sg. 2033. origin: Senegal. collected: 1976. collector id: SL 629bis. other id: NSL 169297. locality: Diouloulou village. Cultivated. Seed.

PI 514618 to 514632. *Carthamus tinctorius* L. ASTERACEAE Safflower

**Donated by:** Li, Dajue, Hortus Botanicus Pekinensis, Instituti 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. Seed.	cultivar: RUDONG.
PI 514623	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: RUICHENG.
PI 514624	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: SHUFU.
PI 514625	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: TAIXING.
PI 514626	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: XI AN.
PI 514627	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: XICHANG.
PI 514628	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: YANJIN.
PI 514629	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: YANLING.
PI 514630	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: YUHUAN.
PI 514631	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: YUYAO.
PI 514632	origin: China, Peoples Repub of. Cultivar. Seed.	cultivar: ZIYANG.

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 514633	donor id: 77-1. origin: Germany, Federal Rep of. collected: 1977. collector: J.B. Powell. collector id: 77-1. Wild. Seed.
PI 514634	donor id: 77-2. origin: Germany, Federal Rep of. collected: 1977. collector: J.B. Powell. collector id: 77-2. Wild. Seed.
PI 514635	donor id: 77-3. origin: Germany, Federal Rep of. collected: 1977. collector: J.B. Powell. collector id: 77-3. Wild. Seed.

PI 514633 to 514643-continued

- PI 514636 donor id: 77-4. origin: Germany, Federal Rep of.  
collected: 1977. collector: J.B. Powell. collector id:  
77-4. Wild. Seed.
- PI 514637 donor id: 77-5. origin: Germany, Federal Rep of.  
collected: 1977. collector: J.B. Powell. collector id:  
77-5. Wild. Seed.
- PI 514638 donor id: 77-6. origin: Germany, Federal Rep of.  
collected: 1977. collector: J.B. Powell. collector id:  
77-6. Wild. Seed.
- PI 514639 donor id: 77-7. origin: Germany, Federal Rep of.  
collected: 1977. collector: J.B. Powell. collector id:  
77-7. Wild. Seed.
- PI 514640 donor id: 77-8. origin: Germany, Federal Rep of.  
collected: 1977. collector: J.B. Powell. collector id:  
77-8. Wild. Seed.
- PI 514641 donor id: 77-9. origin: Germany, Federal Rep of.  
collected: 1977. collector: J.B. Powell. collector id:  
77-9. Wild. Seed.
- PI 514642 donor id: 77-10. origin: Germany, Federal Rep of.  
collected: 1977. collector: J.B. Powell. collector id:  
77-10. Wild. Seed.
- PI 514643 donor id: 77-12. origin: Germany, Federal Rep of.  
collected: 1977. collector: J.B. Powell. collector id:  
77-12. Wild. Seed.

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 514644 donor id: A-33-129-91. origin: Poland. remarks: Highly  
parthenocarpic. Maturity early. Plants determinate with  
green fruit shoulders (u+). Breeding Material. Seed.
- 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 514644 to 514648-continued

- PI 514646 **donor id:** NAA-233-520. **origin:** Poland. **pedigree:** New Yorker/A-33-129-91//A-33-129-91. **other id:** ULF 186. **remarks:** Matures as early as PI 514645. Cold fruit setting. Plants determinate with green fruit shoulders (u+). Breeding Material. Seed.
- PI 514647 **donor id:** NA-562-139. **origin:** Poland. **pedigree:** New Yorker/A-33-129-91. **remarks:** Fruit large. Cold fruit setting. Matures a few days later than PI 514645. Plants determinate with uniform fruit ripening (u). Breeding Material. Seed.
- PI 514648 **donor id:** NA-247-532. **origin:** Poland. **pedigree:** New Yorker/A-33-129-91. **other id:** UIF 286. **remarks:** Fruits larger than PI 514645. Matures earlier than New Yorker. Plants determinate with green fruit shoulders (u+). **disease resistance:** Late blight race 1 (Ph), some to *Septoria lycopersici*. Breeding Material. Seed.

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 **origin:** United States. **cultivar:** MEYER. **pedigree:** PI 247310/PI 279346. **remarks:** Plants intermediate in height, mostly pubescent. Maturity 82 days after emergence. Compared to 170 'elite' lines, Prophet and Indy, produced most oil and yielded more seed with equally good test weight. Standability superior to Prophet and Indy. Seedling vigor good. Formally released January, 1973. Susceptible to *Alternaria* sp. Cultivar. Seed.
- PI 514650 **origin:** United States. **cultivar:** PROPHET. **pedigree:** Mass selection of heavy seed from PI 247310. **remarks:** Maturity 90 days after Emergence. Seedling vigor good. Produces 1.5 to 2.0% more oil than PI 247310 in southern Indiana. Formally released on February 29, 1968. Cultivar. Seed.

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 514651 to 514670-continued

- PI 514651 **origin:** Japan. **cultivar:** AKIHIKARI. **other id:** DG860404. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 95cm tall. Grain medium type. **disease resistance:** Sheath blight-3. Brown spot-4. Leaf smut-4. Narrow brown leaf spot-0. Cultivar. Seed.
- PI 514652 **origin:** Japan. **cultivar:** AKINISHIKI. **other id:** DG860405. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 97cm tall. Grain medium type. **disease resistance:** Sheath blight-2. Brown spot-4. Leaf smut-1. Narrow brown leaf spot-0. Cultivar. Seed.
- PI 514653 **origin:** Japan. **cultivar:** AKIYUTAKA. **other id:** DG860406. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 95cm tall. Grain medium type. **disease resistance:** Sheath blight-3. Brown spot-5. Leaf smut-4. Narrow brown leaf spot-0. Cultivar. Seed.
- PI 514654 **origin:** Japan. **cultivar:** AOISORA. **other id:** DG860407. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 90cm tall. Grain medium type. **disease resistance:** Sheath blight-6. Brown spot-4. Leaf smut-0. Narrow brown leaf spot-0. Cultivar. Seed.
- PI 514655 **origin:** Japan. **cultivar:** CHIYONISHIKI. **other id:** DG860408. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 95cm tall. Grain medium type. **disease resistance:** Sheath blight-4. Brown spot-5. Leaf smut-1. Narrow brown leaf spot-3. Cultivar. Seed.
- PI 514656 **origin:** Japan. **cultivar:** FUKUHIKARI. **other id:** DG860409. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 95cm tall. Grain medium type. **disease resistance:** Sheath blight-3. Brown spot-0. Leaf smut-4. Narrow brown leaf spot-4. Cultivar. Seed.
- PI 514657 **origin:** Japan. **cultivar:** HOUNENWASE. **other id:** DG860411. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 100cm tall. Grain medium type. **disease resistance:** Sheath blight-7. Brown spot-6. Leaf smut-3. Narrow brown leaf spot-2. Cultivar. Seed.
- PI 514658 **origin:** Japan. **cultivar:** HOUREI. **other id:** DG860412. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 95cm tall. Grain medium type. **disease resistance:** Sheath blight-5. Brown spot-2. Leaf smut-3. Narrow brown leaf spot-0. Cultivar. Seed.

PI 514651 to 514670-continued

- PI 514659 **origin:** Japan. **cultivar:** KIYONISHIKI. **other id:** DG860413. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 90cm tall. Grain medium type. **disease resistance:** Sheath blight-6. Brown spot-5. Leaf smut-2. Narrow brown leaf spot-2. Cultivar. Seed.
- PI 514660 **origin:** Japan. **cultivar:** KOCHIHIBIKI. **other id:** DG860414. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 85cm tall. Grain medium type. **disease resistance:** Sheath blight-2. Brown spot-3. Leaf smut-0. Narrow brown leaf spot-0. Cultivar. Seed.
- PI 514661 **origin:** Japan. **cultivar:** KOSHIHIKARI. **other id:** DG860416. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 97cm tall. Grain medium type. **disease resistance:** Sheath blight-4. Brown spot-3. Leaf smut-1. Narrow brown leaf spot-2. Cultivar. Seed.
- PI 514662 **origin:** Japan. **cultivar:** NATSUHIKARI. **other id:** DG860418. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 95cm tall. Grain medium type. **disease resistance:** Sheath blight-5. Brown spot-3. Leaf smut-5. Narrow brown leaf spot-3. Cultivar. Seed.
- PI 514663 **origin:** Japan. **cultivar:** NIPPONBARE. **other id:** DG860419. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 100cm tall. Grain medium type. **disease resistance:** Sheath blight-3. Brown spot-3. Leaf smut-0. Narrow brown leaf spot-0. Cultivar. Seed.
- PI 514664 **origin:** Japan. **cultivar:** OZARA. **other id:** DG860421. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 100cm tall. Grain medium type. **disease resistance:** Sheath blight-5. Brown spot-2. Leaf smut-2. Narrow brown leaf spot-3. Cultivar. Seed.
- PI 514665 **origin:** Japan. **cultivar:** REIMEI. **other id:** DG860423. **source:** D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. **remarks:** Plants 100cm tall. Grain medium type. Cultivar an induced mutant. **disease resistance:** Sheath blight-7. Brown spot-0. Leaf smut-4. Narrow brown leaf spot-0. Cultivar. Seed.

PI 514651 to 514670-continued

- PI 514666 origin: Japan. cultivar: SACHIMINORI. other id: DG860424. source: D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. remarks: Plants 95cm tall. Grain medium type. disease resistance: Sheath blight-5. Brown spot-3. Leaf smut-0. Narrow brown leaf spot-0. Cultivar. Seed.
- PI 514667 origin: Japan. cultivar: SASANISHIKI. other id: DG860425. source: D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. remarks: Plants 95cm tall. Grain medium type. disease resistance: Sheath blight-7. Brown spot-3. Leaf smut-6. Narrow brown leaf spot-1. Cultivar. Seed.
- PI 514668 origin: Japan. cultivar: TODOROKIWASE. other id: DG860426. source: D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. remarks: Plants 90cm tall. Grain medium type. disease resistance: Sheath blight-6. Brown spot-3. Leaf smut-4. Narrow brown leaf spot-0. Cultivar. Seed.
- PI 514669 origin: Japan. cultivar: TOYAMANISHIKI. other id: DG860427. source: D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. remarks: Plants 95cm tall. Grain medium type. disease resistance: Sheath blight-7. Brown spot-3. Leaf smut-4. Narrow brown leaf spot-4. Cultivar. Seed.
- PI 514670 origin: Japan. cultivar: TOYONISHIKI. other id: DG860428. source: D.E. Groth, LSU Rice Research Station, Crowley, Louisiana. remarks: Plants 100cm tall. Grain medium type. disease resistance: Sheath blight-6. Brown spot-2. Leaf smut-3. Narrow brown leaf spot-0. Cultivar. Seed.

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

Donated by: Zhang, K., Soybean Institute, Heilongjiang Academy of Agri. Sciences, Harbin, Heilongjiang, Peoples Republic of China. Received December 21, 1987.

- 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.

**donor id:** 9049945. **origin:** United States. **pedigree:** Composite of accessions 9013483, 9013498, 9013500, 9013515, and 9013544. **locality:** Composite of samples from Gove and Kingman Counties, Kansas; Harlan and Valley Counties, Nebraska. **remarks:** Shrub-small tree, 3-8m tall. Root suckers forming thickets or colonies. Trunks shaggy-barked. Leaves 6-10cm long. Flowers in fascicles of 2-5 with 5-white petals appearing before leaves. Fruit 1-seeded drupe. Exocarp fleshy, red- purple or yellow. Stone flattened, indehiscent. Matures July-August. Adapted to wide range of soil types. Useful for wildlife cover and critical area plantings. Cultivated. Seed.

PI 514678 to 514721. *Zea mays* L. POACEAE Corn

**Donated by:** Amaris, C.D., Jefe Seccion Maiz, Instituto Colombiano Agropecuario, Medellin, Colombia. Received July 10, 1987.

PI 514678 **donor id:** Amagaceno Amarillo. **origin:** Colombia. Cultivated. Seed.

PI 514679 **donor id:** Amagaceno Bl.-Pira. **origin:** Colombia. Cultivated. Seed.

PI 514678 to 514721-continued

PI 514680 donor id: Amagaceno Bl.-Yucatan. origin: Colombia.  
Cultivated. Seed.

PI 514681 donor id: Amagaceno Blanco. origin: Colombia.  
Cultivated. Seed.

PI 514682 donor id: Amagaceno Mejorado. origin: Colombia.  
Cultivated. Seed.

PI 514683 donor id: Amagaceno Segregaciones. origin: Colombia.  
Cultivated. Seed.

PI 514684 donor id: Amagaceno-Puja Grande. origin: Colombia.  
Cultivated. Seed.

PI 514685 donor id: Antioquia 321. origin: Colombia. Cultivated.  
Seed.

PI 514686 donor id: Antioquia 382. origin: Colombia. Cultivated.  
Seed.

PI 514687 donor id: Antioquia 566. origin: Colombia. Cultivated.  
Seed.

PI 514688 donor id: Antioquia 568. origin: Colombia. Cultivated.  
Seed.

PI 514689 donor id: Antioquia 577. origin: Colombia. Cultivated.  
Seed.

PI 514690 donor id: Atlantico 332. origin: Colombia. Cultivated.  
Seed.

PI 514691 donor id: Caqueta 316. origin: Colombia. Cultivated.  
Seed.

PI 514692 donor id: Caqueta 351. origin: Colombia. Cultivated.  
Seed.

PI 514693 donor id: Caqueteno Segregaciones. origin: Colombia.  
Cultivated. Seed.

PI 514694 donor id: Cariaco-Costeno. origin: Colombia.  
Cultivated. Seed.

PI 514695 donor id: Cauca 467. origin: Colombia. Cultivated.  
Seed.

PI 514696 donor id: Cauca 468. origin: Colombia. Cultivated.  
Seed.

PI 514678 to 514721-continued

PI 514697 donor id: Cauca 469. origin: Colombia. Cultivated.  
Seed.

PI 514698 donor id: Cauca 476. origin: Colombia. Cultivated.  
Seed.

PI 514699 donor id: Choco 416. origin: Colombia. Cultivated.  
Seed.

PI 514700 donor id: Choco 422. origin: Colombia. Cultivated.  
Seed.

PI 514701 donor id: Chococeno Blco. Hso. origin: Colombia.  
Cultivated. Seed.

PI 514702 donor id: Chococeno Negrito. origin: Colombia.  
Cultivated. Seed.

PI 514703 donor id: Clavo-Andaqui. origin: Colombia. Cultivated.  
Seed.

PI 514704 donor id: Comun Blanco. origin: Colombia. Cultivated.  
Seed.

PI 514705 donor id: Comun Blanco Con. origin: Colombia.  
Cultivated. Seed.

PI 514706 donor id: Comun Segregaciones. origin: Colombia.  
Cultivated. Seed.

PI 514707 donor id: Costeno Amarillo. origin: Colombia.  
Cultivated. Seed.

PI 514708 donor id: Costeno Mejorado. origin: Colombia.  
Cultivated. Seed.

PI 514709 donor id: Huila 317. origin: Colombia. Cultivated.  
Seed.

PI 514710 donor id: Narino 373b. origin: Colombia. Cultivated.  
Seed.

PI 514711 donor id: Narino 615. origin: Colombia. Cultivated.  
Seed.

PI 514712 donor id: Narino 631. origin: Colombia. Cultivated.  
Seed.

PI 514713 donor id: Puya Amarillo. origin: Colombia. Cultivated.  
Seed.

PI 514678 to 514721-continued

- PI 514714 donor id: Puya Blanco. origin: Colombia. Cultivated. Seed.
- PI 514715 donor id: Puya Grande. origin: Colombia. Cultivated. Seed.
- PI 514716 donor id: Raza Cacao Tipica. origin: Colombia. Cultivated. Seed.
- PI 514717 donor id: Raza Maiz Dulce. origin: Colombia. Cultivated. Seed.
- PI 514718 donor id: Raza Negrito Tipica. origin: Colombia. Cultivated. Seed.
- PI 514719 donor id: Raza Puga Segregaciones. origin: Colombia. Cultivated. Seed.
- PI 514720 donor id: Santander S 306. origin: Colombia. Cultivated. Seed.
- PI 514721 donor id: Yucatan Tipica. origin: Colombia. Cultivated. Seed.

PI 514722 to 515134. Zea mays L. POACEAE Corn

Donated by: Sevilla P., R., Programa Cooperative De Invest. en Maiz, Universidad Nacional Agraria, La Molina, Lima, Peru. Received July 10, 1987.

- PI 514722 donor id: Amazonas 2. origin: Peru. Cultivated. Seed.
- PI 514723 donor id: Amazonas 3. origin: Peru. Cultivated. Seed.
- PI 514724 donor id: Amazonas 7. origin: Peru. Cultivated. Seed.
- PI 514725 donor id: Amazonas 9. origin: Peru. Cultivated. Seed.
- PI 514726 donor id: Amazonas 29. origin: Peru. Cultivated. Seed.
- PI 514727 donor id: Amazonas 31. origin: Peru. Cultivated. Seed.
- PI 514728 donor id: Amazonas 35. origin: Peru. Cultivated. Seed.
- PI 514729 donor id: Amazonas 37. origin: Peru. Cultivated. Seed.
- PI 514730 donor id: Amazonas 38. origin: Peru. Cultivated. Seed.
- PI 514731 donor id: Amazonas 40. origin: Peru. Cultivated. Seed.
- PI 514732 donor id: Amazonas 41. origin: Peru. Cultivated. Seed.

PI 514722 to 515134-continued

PI 514733	donor id: Amazonas 42.	origin: Peru.	Cultivated.	Seed.
PI 514734	donor id: Amazonas 43.	origin: Peru.	Cultivated.	Seed.
PI 514735	donor id: Amazonas 45.	origin: Peru.	Cultivated.	Seed.
PI 514736	donor id: Amazonas 46.	origin: Peru.	Cultivated.	Seed.
PI 514737	donor id: Amazonas 47.	origin: Peru.	Cultivated.	Seed.
PI 514738	donor id: Amazonas 48.	origin: Peru.	Cultivated.	Seed.
PI 514739	donor id: Amazonas 50.	origin: Peru.	Cultivated.	Seed.
PI 514740	donor id: Amazonas 51.	origin: Peru.	Cultivated.	Seed.
PI 514741	donor id: Amazonas 52.	origin: Peru.	Cultivated.	Seed.
PI 514742	donor id: Amazonas 53.	origin: Peru.	Cultivated.	Seed.
PI 514743	donor id: Amazonas 54.	origin: Peru.	Cultivated.	Seed.
PI 514744	donor id: Ancash 4.	origin: Peru.	Cultivated.	Seed.
PI 514745	donor id: Ancash 5.	origin: Peru.	Cultivated.	Seed.
PI 514746	donor id: Ancash 13.	origin: Peru.	Cultivated.	Seed.
PI 514747	donor id: Ancash 14.	origin: Peru.	Cultivated.	Seed.
PI 514748	donor id: Ancash 26.	origin: Peru.	Cultivated.	Seed.
PI 514749	donor id: Ancash 28.	origin: Peru.	Cultivated.	Seed.
PI 514750	donor id: Ancash 51.	origin: Peru.	Cultivated.	Seed.
PI 514751	donor id: Ancash 56.	origin: Peru.	Cultivated.	Seed.
PI 514752	donor id: Ancash 58.	origin: Peru.	Cultivated.	Seed.
PI 514753	donor id: Ancash 62.	origin: Peru.	Cultivated.	Seed.
PI 514754	donor id: Ancash 64.	origin: Peru.	Cultivated.	Seed.
PI 514755	donor id: Ancash 65.	origin: Peru.	Cultivated.	Seed.
PI 514756	donor id: Ancash 68.	origin: Peru.	Cultivated.	Seed.
PI 514757	donor id: Ancash 70.	origin: Peru.	Cultivated.	Seed.
PI 514758	donor id: Ancash 74.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 514759	donor id: Ancash 75.	origin: Peru.	Cultivated.	Seed.
PI 514760	donor id: Ancash 84.	origin: Peru.	Cultivated.	Seed.
PI 514761	donor id: Ancash 97.	origin: Peru.	Cultivated.	Seed.
PI 514762	donor id: Ancash 98.	origin: Peru.	Cultivated.	Seed.
PI 514763	donor id: Ancash 102.	origin: Peru.	Cultivated.	Seed.
PI 514764	donor id: Ancash 104.	origin: Peru.	Cultivated.	Seed.
PI 514765	donor id: Ancash 112.	origin: Peru.	Cultivated.	Seed.
PI 514766	donor id: Ancash 115.	origin: Peru.	Cultivated.	Seed.
PI 514767	donor id: Ancash 125.	origin: Peru.	Cultivated.	Seed.
PI 514768	donor id: Ancash 144.	origin: Peru.	Cultivated.	Seed.
PI 514769	donor id: Ancash 157.	origin: Peru.	Cultivated.	Seed.
PI 514770	donor id: Ancash 166.	origin: Peru.	Cultivated.	Seed.
PI 514771	donor id: Ancash 167.	origin: Peru.	Cultivated.	Seed.
PI 514772	donor id: Ancash 200.	origin: Peru.	Cultivated.	Seed.
PI 514773	donor id: Ancash 208.	origin: Peru.	Cultivated.	Seed.
PI 514774	donor id: Ancash 213.	origin: Peru.	Cultivated.	Seed.
PI 514775	donor id: Ancash 218.	origin: Peru.	Cultivated.	Seed.
PI 514776	donor id: Ancash 231.	origin: Peru.	Cultivated.	Seed.
PI 514777	donor id: Ancash 237.	origin: Peru.	Cultivated.	Seed.
PI 514778	donor id: Ancash 240.	origin: Peru.	Cultivated.	Seed.
PI 514779	donor id: Ancash 259.	origin: Peru.	Cultivated.	Seed.
PI 514780	donor id: Ancash 263.	origin: Peru.	Cultivated.	Seed.
PI 514781	donor id: Ancash 264.	origin: Peru.	Cultivated.	Seed.
PI 514782	donor id: Ancash 267.	origin: Peru.	Cultivated.	Seed.
PI 514783	donor id: Ancash 270.	origin: Peru.	Cultivated.	Seed.
PI 514784	donor id: Ancash 273.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 514785	donor id: Ancash 278.	origin: Peru.	Cultivated.	Seed.
PI 514786	donor id: Ancash 279.	origin: Peru.	Cultivated.	Seed.
PI 514787	donor id: Ancash 280.	origin: Peru.	Cultivated.	Seed.
PI 514788	donor id: Ancash 288.	origin: Peru.	Cultivated.	Seed.
PI 514789	donor id: Ancash 291.	origin: Peru.	Cultivated.	Seed.
PI 514790	donor id: Ancash 292.	origin: Peru.	Cultivated.	Seed.
PI 514791	donor id: Ancash 293.	origin: Peru.	Cultivated.	Seed.
PI 514792	donor id: Ancash 295.	origin: Peru.	Cultivated.	Seed.
PI 514793	donor id: Ancash 296.	origin: Peru.	Cultivated.	Seed.
PI 514794	donor id: Ancash 304.	origin: Peru.	Cultivated.	Seed.
PI 514795	donor id: Ancash 305.	origin: Peru.	Cultivated.	Seed.
PI 514796	donor id: Ancash 307.	origin: Peru.	Cultivated.	Seed.
PI 514797	donor id: Ancash 308.	origin: Peru.	Cultivated.	Seed.
PI 514798	donor id: Ancash 310.	origin: Peru.	Cultivated.	Seed.
PI 514799	donor id: Ancash 313.	origin: Peru.	Cultivated.	Seed.
PI 514800	donor id: Ancash 314.	origin: Peru.	Cultivated.	Seed.
PI 514801	donor id: Ancash 323.	origin: Peru.	Cultivated.	Seed.
PI 514802	donor id: Ancash 325.	origin: Peru.	Cultivated.	Seed.
PI 514803	donor id: Ancash 326.	origin: Peru.	Cultivated.	Seed.
PI 514804	donor id: Ancash 327.	origin: Peru.	Cultivated.	Seed.
PI 514805	donor id: Ancash 328.	origin: Peru.	Cultivated.	Seed.
PI 514806	donor id: Ancash 332.	origin: Peru.	Cultivated.	Seed.
PI 514807	donor id: Ancash 334.	origin: Peru.	Cultivated.	Seed.
PI 514808	donor id: Ancash 335.	origin: Peru.	Cultivated.	Seed.
PI 514809	donor id: Ancash 336.	origin: Peru.	Cultivated.	Seed.
PI 514810	donor id: Ancash 337.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 514811	donor id: Ancash 340.	origin: Peru.	Cultivated.	Seed.
PI 514812	donor id: Ancash 342.	origin: Peru.	Cultivated.	Seed.
PI 514813	donor id: Ancash 346.	origin: Peru.	Cultivated.	Seed.
PI 514814	donor id: Ancash 355.	origin: Peru.	Cultivated.	Seed.
PI 514815	donor id: Ancash 369.	origin: Peru.	Cultivated.	Seed.
PI 514816	donor id: Ancash 374.	origin: Peru.	Cultivated.	Seed.
PI 514817	donor id: Ancash 393.	origin: Peru.	Cultivated.	Seed.
PI 514818	donor id: Ancash 411.	origin: Peru.	Cultivated.	Seed.
PI 514819	donor id: Ancash 430.	origin: Peru.	Cultivated.	Seed.
PI 514820	donor id: Ancash 431.	origin: Peru.	Cultivated.	Seed.
PI 514821	donor id: Ancash 434.	origin: Peru.	Cultivated.	Seed.
PI 514822	donor id: Ancash 435.	origin: Peru.	Cultivated.	Seed.
PI 514823	donor id: Ancash 436.	origin: Peru.	Cultivated.	Seed.
PI 514824	donor id: Ancash 437.	origin: Peru.	Cultivated.	Seed.
PI 514825	donor id: Ancash 438.	origin: Peru.	Cultivated.	Seed.
PI 514826	donor id: Ancash 439.	origin: Peru.	Cultivated.	Seed.
PI 514827	donor id: Ancash 440.	origin: Peru.	Cultivated.	Seed.
PI 514828	donor id: Ancash 441.	origin: Peru.	Cultivated.	Seed.
PI 514829	donor id: Ancash 445.	origin: Peru.	Cultivated.	Seed.
PI 514830	donor id: Ancash 460.	origin: Peru.	Cultivated.	Seed.
PI 514831	donor id: Ancash 461.	origin: Peru.	Cultivated.	Seed.
PI 514832	donor id: Ancash 463.	origin: Peru.	Cultivated.	Seed.
PI 514833	donor id: Ancash 468.	origin: Peru.	Cultivated.	Seed.
PI 514834	donor id: Ancash 469.	origin: Peru.	Cultivated.	Seed.
PI 514835	donor id: Ancash 470.	origin: Peru.	Cultivated.	Seed.
PI 514836	donor id: Ancash 473.	origin: Peru.	Cultivated.	Seed.



PI 514722 to 515134-continued

PI 514837	donor id: Ancash 482.	origin: Peru.	Cultivated.	Seed.
PI 514838	donor id: Ancash 483.	origin: Peru.	Cultivated.	Seed.
PI 514839	donor id: Ancash 506.	origin: Peru.	Cultivated.	Seed.
PI 514840	donor id: Ancash 551.	origin: Peru.	Cultivated.	Seed.
PI 514841	donor id: Ancash 562.	origin: Peru.	Cultivated.	Seed.
PI 514842	donor id: Ancash 602.	origin: Peru.	Cultivated.	Seed.
PI 514843	donor id: Ancash 616.	origin: Peru.	Cultivated.	Seed.
PI 514844	donor id: Arequipa 2.	origin: Peru.	Cultivated.	Seed.
PI 514845	donor id: Arequipa 8.	origin: Peru.	Cultivated.	Seed.
PI 514846	donor id: Arequipa 10.	origin: Peru.	Cultivated.	Seed.
PI 514847	donor id: Arequipa 11.	origin: Peru.	Cultivated.	Seed.
PI 514848	donor id: Arequipa 15.	origin: Peru.	Cultivated.	Seed.
PI 514849	donor id: Arequipa 16.	origin: Peru.	Cultivated.	Seed.
PI 514850	donor id: Arequipa 52.	origin: Peru.	Cultivated.	Seed.
PI 514851	donor id: Arequipa 53.	origin: Peru.	Cultivated.	Seed.
PI 514852	donor id: Arequipa 54.	origin: Peru.	Cultivated.	Seed.
PI 514853	donor id: Arequipa 55.	origin: Peru.	Cultivated.	Seed.
PI 514854	donor id: Arequipa 56.	origin: Peru.	Cultivated.	Seed.
PI 514855	donor id: Arequipa 57.	origin: Peru.	Cultivated.	Seed.
PI 514856	donor id: Arequipa 58.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 514857	donor id: Arequipa	59.	origin: Peru.	Cultivated.
	Seed.			
PI 514858	donor id: Arequipa	60.	origin: Peru.	Cultivated.
	Seed.			
PI 514859	donor id: Arequipa	61.	origin: Peru.	Cultivated.
	Seed.			
PI 514860	donor id: Arequipa	62.	origin: Peru.	Cultivated.
	Seed.			
PI 514861	donor id: Arequipa	67.	origin: Peru.	Cultivated.
	Seed.			
PI 514862	donor id: Arequipa	81.	origin: Peru.	Cultivated.
	Seed.			
PI 514863	donor id: Arequipa	83.	origin: Peru.	Cultivated.
	Seed.			
PI 514864	donor id: Arequipa	85.	origin: Peru.	Cultivated.
	Seed.			
PI 514865	donor id: Arequipa	114.	origin: Peru.	Cultivated.
	Seed.			
PI 514866	donor id: Arequipa	115.	origin: Peru.	Cultivated.
	Seed.			
PI 514867	donor id: Arequipa	116.	origin: Peru.	Cultivated.
	Seed.			
PI 514868	donor id: Arequipa	153.	origin: Peru.	Cultivated.
	Seed.			
PI 514869	donor id: Arequipa	239.	origin: Peru.	Cultivated.
	Seed.			
PI 514870	donor id: Cajamarca	30.	origin: Peru.	Cultivated.
	Seed.			
PI 514871	donor id: Cajamarca	35.	origin: Peru.	Cultivated.
	Seed.			
PI 514872	donor id: Cajamarca	61.	origin: Peru.	Cultivated.
	Seed.			
PI 514873	donor id: Cajamarca	70.	origin: Peru.	Cultivated.
	Seed.			

PI 514722 to 515134-continued

PI 514874	donor id: Cajamarca	72.	origin: Peru.	Cultivated.
	Seed.			
PI 514875	donor id: Cajamarca	96.	origin: Peru.	Cultivated.
	Seed.			
PI 514876	donor id: Cajamarca	97.	origin: Peru.	Cultivated.
	Seed.			
PI 514877	donor id: Cajamarca	108.	origin: Peru.	Cultivated.
	Seed.			
PI 514878	donor id: Cajamarca	125.	origin: Peru.	Cultivated.
	Seed.			
PI 514879	donor id: Cajamarca	126.	origin: Peru.	Cultivated.
	Seed.			
PI 514880	donor id: Cajamarca	127.	origin: Peru.	Cultivated.
	Seed.			
PI 514881	donor id: Cajamarca	128.	origin: Peru.	Cultivated.
	Seed.			
PI 514882	donor id: Cajamarca	198.	origin: Peru.	Cultivated.
	Seed.			
PI 514883	donor id: Cajamarca	200.	origin: Peru.	Cultivated.
	Seed.			
PI 514884	donor id: Cajamarca	204.	origin: Peru.	Cultivated.
	Seed.			
PI 514885	donor id: Cajamarca	205.	origin: Peru.	Cultivated.
	Seed.			
PI 514886	donor id: Cajamarca	206.	origin: Peru.	Cultivated.
	Seed.			
PI 514887	donor id: Cajamarca	207.	origin: Peru.	Cultivated.
	Seed.			
PI 514888	donor id: Cajamarca	208.	origin: Peru.	Cultivated.
	Seed.			
PI 514889	donor id: Cajamarca	209.	origin: Peru.	Cultivated.
	Seed.			
PI 514890	donor id: Cajamarca	211.	origin: Peru.	Cultivated.
	Seed.			

PI 514722 to 515134-continued

PI 514891	donor id: Cajamarca 217.	origin: Peru.	Cultivated.	Seed.
PI 514892	donor id: Cajamarca 219.	origin: Peru.	Cultivated.	Seed.
PI 514893	donor id: Cuzco 238.	origin: Peru.	Cultivated.	Seed.
PI 514894	donor id: Cuzco 327.	origin: Peru.	Cultivated.	Seed.
PI 514895	donor id: Cuzco 330.	origin: Peru.	Cultivated.	Seed.
PI 514896	donor id: Cuzco 331.	origin: Peru.	Cultivated.	Seed.
PI 514897	donor id: Huanuco 53.	origin: Peru.	Cultivated.	Seed.
PI 514898	donor id: Huanuco 55.	origin: Peru.	Cultivated.	Seed.
PI 514899	donor id: Huanuco 70.	origin: Peru.	Cultivated.	Seed.
PI 514900	donor id: Huanuco 74.	origin: Peru.	Cultivated.	Seed.
PI 514901	donor id: Huanuco 85.	origin: Peru.	Cultivated.	Seed.
PI 514902	donor id: Huanuco 86.	origin: Peru.	Cultivated.	Seed.
PI 514903	donor id: Huanuco 88.	origin: Peru.	Cultivated.	Seed.
PI 514904	donor id: Huanuco 89.	origin: Peru.	Cultivated.	Seed.
PI 514905	donor id: Huanuco 90.	origin: Peru.	Cultivated.	Seed.
PI 514906	donor id: Huanuco 92.	origin: Peru.	Cultivated.	Seed.
PI 514907	donor id: Huanuco 93.	origin: Peru.	Cultivated.	Seed.
PI 514908	donor id: Huanuco 94.	origin: Peru.	Cultivated.	Seed.
PI 514909	donor id: Huanuco 95.	origin: Peru.	Cultivated.	Seed.
PI 514910	donor id: Huanuco 96.	origin: Peru.	Cultivated.	Seed.
PI 514911	donor id: Huanuco 97.	origin: Peru.	Cultivated.	Seed.
PI 514912	donor id: Huanuco 111.	origin: Peru.	Cultivated.	Seed.
PI 514913	donor id: Huanuco 139.	origin: Peru.	Cultivated.	Seed.
PI 514914	donor id: Ica 1.	origin: Peru.	Cultivated.	Seed.
PI 514915	donor id: Ica 3.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 514916	donor id: Ica 6.	origin: Peru.	Cultivated.	Seed.
PI 514917	donor id: Ica 10.	origin: Peru.	Cultivated.	Seed.
PI 514918	donor id: Ica 11.	origin: Peru.	Cultivated.	Seed.
PI 514919	donor id: Ica 12.	origin: Peru.	Cultivated.	Seed.
PI 514920	donor id: Ica 15.	origin: Peru.	Cultivated.	Seed.
PI 514921	donor id: Ica 16.	origin: Peru.	Cultivated.	Seed.
PI 514922	donor id: Ica 17.	origin: Peru.	Cultivated.	Seed.
PI 514923	donor id: Ica 20.	origin: Peru.	Cultivated.	Seed.
PI 514924	donor id: Ica 21.	origin: Peru.	Cultivated.	Seed.
PI 514925	donor id: Ica 22.	origin: Peru.	Cultivated.	Seed.
PI 514926	donor id: Ica 24.	origin: Peru.	Cultivated.	Seed.
PI 514927	donor id: Ica 25.	origin: Peru.	Cultivated.	Seed.
PI 514928	donor id: Ica 26.	origin: Peru.	Cultivated.	Seed.
PI 514929	donor id: Ica 27.	origin: Peru.	Cultivated.	Seed.
PI 514930	donor id: Ica 28.	origin: Peru.	Cultivated.	Seed.
PI 514931	donor id: Ica 31.	origin: Peru.	Cultivated.	Seed.
PI 514932	donor id: Ica 32.	origin: Peru.	Cultivated.	Seed.
PI 514933	donor id: Ica 34.	origin: Peru.	Cultivated.	Seed.
PI 514934	donor id: Ica 37.	origin: Peru.	Cultivated.	Seed.
PI 514935	donor id: Ica 38.	origin: Peru.	Cultivated.	Seed.
PI 514936	donor id: Ica 39.	origin: Peru.	Cultivated.	Seed.
PI 514937	donor id: Ica 40.	origin: Peru.	Cultivated.	Seed.
PI 514938	donor id: Ica 41.	origin: Peru.	Cultivated.	Seed.
PI 514939	donor id: Ica 42.	origin: Peru.	Cultivated.	Seed.
PI 514940	donor id: Ica 43.	origin: Peru.	Cultivated.	Seed.
PI 514941	donor id: Ica 44.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 514942	donor id: Ica 45.	origin: Peru.	Cultivated.	Seed.
PI 514943	donor id: Ica 46.	origin: Peru.	Cultivated.	Seed.
PI 514944	donor id: Ica 47.	origin: Peru.	Cultivated.	Seed.
PI 514945	donor id: Ica 48.	origin: Peru.	Cultivated.	Seed.
PI 514946	donor id: Ica 51.	origin: Peru.	Cultivated.	Seed.
PI 514947	donor id: Junin 218.	origin: Peru.	Cultivated.	Seed.
PI 514948	donor id: Junin 220.	origin: Peru.	Cultivated.	Seed.
PI 514949	donor id: Junin 226.	origin: Peru.	Cultivated.	Seed.
PI 514950	donor id: Junin 227.	origin: Peru.	Cultivated.	Seed.
PI 514951	donor id: Junin 228.	origin: Peru.	Cultivated.	Seed.
PI 514952	donor id: Junin 229.	origin: Peru.	Cultivated.	Seed.
PI 514953	donor id: Junin 230.	origin: Peru.	Cultivated.	Seed.
PI 514954	donor id: Junin 231.	origin: Peru.	Cultivated.	Seed.
PI 514955	donor id: Junin 232.	origin: Peru.	Cultivated.	Seed.
PI 514956	donor id: Junin 233.	origin: Peru.	Cultivated.	Seed.
PI 514957	donor id: Junin 238.	origin: Peru.	Cultivated.	Seed.
PI 514958	donor id: Junin 240.	origin: Peru.	Cultivated.	Seed.
PI 514959	donor id: Junin 242.	origin: Peru.	Cultivated.	Seed.
PI 514960	donor id: Junin 243.	origin: Peru.	Cultivated.	Seed.
PI 514961	donor id: Junin 244.	origin: Peru.	Cultivated.	Seed.
PI 514962	donor id: Lambayeque 49.	origin: Peru.	Cultivated.	Seed.
PI 514963	donor id: Lambayeque 87.	origin: Peru.	Cultivated.	Seed.
PI 514964	donor id: Libertad 1.	origin: Peru.	Cultivated.	Seed.
PI 514965	donor id: Libertad 32.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 514966	donor id: Libertad Seed.	39.	origin: Peru.	Cultivated.
PI 514967	donor id: Libertad Seed.	43.	origin: Peru.	Cultivated.
PI 514968	donor id: Libertad Seed.	46.	origin: Peru.	Cultivated.
PI 514969	donor id: Libertad Seed.	47.	origin: Peru.	Cultivated.
PI 514970	donor id: Libertad Seed.	50.	origin: Peru.	Cultivated.
PI 514971	donor id: Libertad Seed.	56.	origin: Peru.	Cultivated.
PI 514972	donor id: Libertad Seed.	59.	origin: Peru.	Cultivated.
PI 514973	donor id: Libertad Seed.	60.	origin: Peru.	Cultivated.
PI 514974	donor id: Libertad Seed.	62.	origin: Peru.	Cultivated.
PI 514975	donor id: Libertad Seed.	65.	origin: Peru.	Cultivated.
PI 514976	donor id: Libertad Seed.	66.	origin: Peru.	Cultivated.
PI 514977	donor id: Libertad Seed.	67.	origin: Peru.	Cultivated.
PI 514978	donor id: Libertad Seed.	68.	origin: Peru.	Cultivated.
PI 514979	donor id: Libertad Seed.	78.	origin: Peru.	Cultivated.
PI 514980	donor id: Libertad Seed.	81.	origin: Peru.	Cultivated.
PI 514981	donor id: Libertad Seed.	99.	origin: Peru.	Cultivated.
PI 514982	donor id: Libertad Seed.	142.	origin: Peru.	Cultivated.

PI 514722 to 515134-continued

PI 514983	donor id: Libertad 173. Seed.	origin: Peru.	Cultivated.
PI 514984	donor id: Libertad 174. Seed.	origin: Peru.	Cultivated.
PI 514985	donor id: Libertad 175. Seed.	origin: Peru.	Cultivated.
PI 514986	donor id: Libertad 176. Seed.	origin: Peru.	Cultivated.
PI 514987	donor id: Libertad 178. Seed.	origin: Peru.	Cultivated.
PI 514988	donor id: Libertad 180. Seed.	origin: Peru.	Cultivated.
PI 514989	donor id: Libertad 184. Seed.	origin: Peru.	Cultivated.
PI 514990	donor id: Libertad 186. Seed.	origin: Peru.	Cultivated.
PI 514991	donor id: Libertad 191. Seed.	origin: Peru.	Cultivated.
PI 514992	donor id: Libertad 202. Seed.	origin: Peru.	Cultivated.
PI 514993	donor id: Libertad 203. Seed.	origin: Peru.	Cultivated.
PI 514994	donor id: Libertad 205. Seed.	origin: Peru.	Cultivated.
PI 514995	donor id: Libertad 206. Seed.	origin: Peru.	Cultivated.
PI 514996	donor id: Libertad 207. Seed.	origin: Peru.	Cultivated.
PI 514997	donor id: Libertad 208. Seed.	origin: Peru.	Cultivated.
PI 514998	donor id: Libertad 210. Seed.	origin: Peru.	Cultivated.
PI 514999	donor id: Libertad 211. Seed.	origin: Peru.	Cultivated.



PI 514722 to 515134-continued

PI 515000	donor id: Libertad 212.	origin: Peru.	Cultivated.
	Seed.		
PI 515001	donor id: Libertad 213.	origin: Peru.	Cultivated.
	Seed.		
PI 515002	donor id: Libertad 214.	origin: Peru.	Cultivated.
	Seed.		
PI 515003	donor id: Libertad 215.	origin: Peru.	Cultivated.
	Seed.		
PI 515004	donor id: Libertad 216.	origin: Peru.	Cultivated.
	Seed.		
PI 515005	donor id: Libertad 219.	origin: Peru.	Cultivated.
	Seed.		
PI 515006	donor id: Libertad 220.	origin: Peru.	Cultivated.
	Seed.		
PI 515007	donor id: Libertad 221.	origin: Peru.	Cultivated.
	Seed.		
PI 515008	donor id: Libertad 224.	origin: Peru.	Cultivated.
	Seed.		
PI 515009	donor id: Libertad 225.	origin: Peru.	Cultivated.
	Seed.		
PI 515010	donor id: Libertad 226.	origin: Peru.	Cultivated.
	Seed.		
PI 515011	donor id: Libertad 227.	origin: Peru.	Cultivated.
	Seed.		
PI 515012	donor id: Libertad 229.	origin: Peru.	Cultivated.
	Seed.		
PI 515013	donor id: Libertad 231.	origin: Peru.	Cultivated.
	Seed.		
PI 515014	donor id: Libertad 235.	origin: Peru.	Cultivated.
	Seed.		
PI 515015	donor id: Libertad 237.	origin: Peru.	Cultivated.
	Seed.		
PI 515016	donor id: Libertad 247.	origin: Peru.	Cultivated.
	Seed.		
PI 515017	donor id: Lima 5.	origin: Peru.	Cultivated. Seed.

PI 514722 to 515134-continued

PI 515018	donor id: Lima	17.	origin: Peru.	Cultivated.	Seed.
PI 515019	donor id: Lima	27.	origin: Peru.	Cultivated.	Seed.
PI 515020	donor id: Lima	29.	origin: Peru.	Cultivated.	Seed.
PI 515021	donor id: Lima	38.	origin: Peru.	Cultivated.	Seed.
PI 515022	donor id: Lima	42.	origin: Peru.	Cultivated.	Seed.
PI 515023	donor id: Lima	51.	origin: Peru.	Cultivated.	Seed.
PI 515024	donor id: Lima	52.	origin: Peru.	Cultivated.	Seed.
PI 515025	donor id: Lima	54.	origin: Peru.	Cultivated.	Seed.
PI 515026	donor id: Lima	55.	origin: Peru.	Cultivated.	Seed.
PI 515027	donor id: Lima	57.	origin: Peru.	Cultivated.	Seed.
PI 515028	donor id: Lima	63.	origin: Peru.	Cultivated.	Seed.
PI 515029	donor id: Lima	71.	origin: Peru.	Cultivated.	Seed.
PI 515030	donor id: Lima	72.	origin: Peru.	Cultivated.	Seed.
PI 515031	donor id: Lima	74.	origin: Peru.	Cultivated.	Seed.
PI 515032	donor id: Lima	75.	origin: Peru.	Cultivated.	Seed.
PI 515033	donor id: Lima	76.	origin: Peru.	Cultivated.	Seed.
PI 515034	donor id: Lima	77.	origin: Peru.	Cultivated.	Seed.
PI 515035	donor id: Lima	78.	origin: Peru.	Cultivated.	Seed.
PI 515036	donor id: Lima	79.	origin: Peru.	Cultivated.	Seed.
PI 515037	donor id: Lima	80.	origin: Peru.	Cultivated.	Seed.
PI 515038	donor id: Lima	81.	origin: Peru.	Cultivated.	Seed.
PI 515039	donor id: Lima	82.	origin: Peru.	Cultivated.	Seed.
PI 515040	donor id: Lima	83.	origin: Peru.	Cultivated.	Seed.
PI 515041	donor id: Lima	85.	origin: Peru.	Cultivated.	Seed.
PI 515042	donor id: Lima	86.	origin: Peru.	Cultivated.	Seed.
PI 515043	donor id: Lima	88.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 515044	donor id: Lima	89.	origin: Peru.	Cultivated.	Seed.
PI 515045	donor id: Lima	134.	origin: Peru.	Cultivated.	Seed.
PI 515046	donor id: Loreto	2.	origin: Peru.	Cultivated.	Seed.
PI 515047	donor id: Loreto	3.	origin: Peru.	Cultivated.	Seed.
PI 515048	donor id: Loreto	4.	origin: Peru.	Cultivated.	Seed.
PI 515049	donor id: Loreto	5.	origin: Peru.	Cultivated.	Seed.
PI 515050	donor id: Loreto	6.	origin: Peru.	Cultivated.	Seed.
PI 515051	donor id: Loreto	7.	origin: Peru.	Cultivated.	Seed.
PI 515052	donor id: Loreto	8.	origin: Peru.	Cultivated.	Seed.
PI 515053	donor id: Loreto	9.	origin: Peru.	Cultivated.	Seed.
PI 515054	donor id: Loreto	10.	origin: Peru.	Cultivated.	Seed.
PI 515055	donor id: Loreto	11.	origin: Peru.	Cultivated.	Seed.
PI 515056	donor id: Loreto	14.	origin: Peru.	Cultivated.	Seed.
PI 515057	donor id: Madre De Dios	4.	origin: Peru.	Cultivated.	Seed.
PI 515058	donor id: Pasco	15.	origin: Peru.	Cultivated.	Seed.
PI 515059	donor id: Piura	167.	origin: Peru.	Cultivated.	Seed.
PI 515060	donor id: San Martin	2.	origin: Peru.	Cultivated.	Seed.
PI 515061	donor id: San Martin	3.	origin: Peru.	Cultivated.	Seed.
PI 515062	donor id: San Martin	4.	origin: Peru.	Cultivated.	Seed.
PI 515063	donor id: San Martin	7.	origin: Peru.	Cultivated.	Seed.
PI 515064	donor id: San Martin	9.	origin: Peru.	Cultivated.	Seed.
PI 515065	donor id: San Martin	11.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 515066	donor id: San Martin Seed.	12.	origin: Peru.	Cultivated.
PI 515067	donor id: San Martin Seed.	31.	origin: Peru.	Cultivated.
PI 515068	donor id: San Martin Seed.	34.	origin: Peru.	Cultivated.
PI 515069	donor id: San Martin Seed.	40.	origin: Peru.	Cultivated.
PI 515070	donor id: San Martin Seed.	47.	origin: Peru.	Cultivated.
PI 515071	donor id: San Martin Seed.	49.	origin: Peru.	Cultivated.
PI 515072	donor id: San Martin Seed.	54.	origin: Peru.	Cultivated.
PI 515073	donor id: San Martin Seed.	56.	origin: Peru.	Cultivated.
PI 515074	donor id: San Martin Seed.	57.	origin: Peru.	Cultivated.
PI 515075	donor id: San Martin Seed.	58.	origin: Peru.	Cultivated.
PI 515076	donor id: San Martin Seed.	59.	origin: Peru.	Cultivated.
PI 515077	donor id: San Martin Seed.	61.	origin: Peru.	Cultivated.
PI 515078	donor id: San Martin Seed.	62.	origin: Peru.	Cultivated.
PI 515079	donor id: San Martin Seed.	64.	origin: Peru.	Cultivated.
PI 515080	donor id: San Martin Seed.	73.	origin: Peru.	Cultivated.
PI 515081	donor id: San Martin Seed.	81.	origin: Peru.	Cultivated.
PI 515082	donor id: San Martin Seed.	84.	origin: Peru.	Cultivated.

PI 514722 to 515134-continued

PI 515083	donor id: San Martin 86. Seed.	origin: Peru.	Cultivated.
PI 515084	donor id: San Martin 92. Seed.	origin: Peru.	Cultivated.
PI 515085	donor id: San Martin 101. Seed.	origin: Peru.	Cultivated.
PI 515086	donor id: San Martin 103. Seed.	origin: Peru.	Cultivated.
PI 515087	donor id: San Martin 105. Seed.	origin: Peru.	Cultivated.
PI 515088	donor id: San Martin 110. Seed.	origin: Peru.	Cultivated.
PI 515089	donor id: San Martin 112. Seed.	origin: Peru.	Cultivated.
PI 515090	donor id: San Martin 113. Seed.	origin: Peru.	Cultivated.
PI 515091	donor id: San Martin 114. Seed.	origin: Peru.	Cultivated.
PI 515092	donor id: San Martin 121. Seed.	origin: Peru.	Cultivated.
PI 515093	donor id: San Martin 122. Seed.	origin: Peru.	Cultivated.
PI 515094	donor id: San Martin 123. Seed.	origin: Peru.	Cultivated.
PI 515095	donor id: San Martin 124. Seed.	origin: Peru.	Cultivated.
PI 515096	donor id: San Martin 125. Seed.	origin: Peru.	Cultivated.
PI 515097	donor id: San Martin 126. Seed.	origin: Peru.	Cultivated.
PI 515098	donor id: San Martin 127. Seed.	origin: Peru.	Cultivated.
PI 515099	donor id: San Martin 132. Seed.	origin: Peru.	Cultivated.

PI 514722 to 515134-continued

PI 515100	donor id: San Martin 134.	origin: Peru.	Cultivated.	Seed.
PI 515101	donor id: San Martin 135.	origin: Peru.	Cultivated.	Seed.
PI 515102	donor id: San Martin 136.	origin: Peru.	Cultivated.	Seed.
PI 515103	donor id: San Martin 137.	origin: Peru.	Cultivated.	Seed.
PI 515104	donor id: San Martin 138.	origin: Peru.	Cultivated.	Seed.
PI 515105	donor id: San Martin 139.	origin: Peru.	Cultivated.	Seed.
PI 515106	donor id: Tacna 18.	origin: Peru.	Cultivated.	Seed.
PI 515107	donor id: Tacna 19.	origin: Peru.	Cultivated.	Seed.
PI 515108	donor id: Tacna 20.	origin: Peru.	Cultivated.	Seed.
PI 515109	donor id: Tacna 21.	origin: Peru.	Cultivated.	Seed.
PI 515110	donor id: Tacna 25.	origin: Peru.	Cultivated.	Seed.
PI 515111	donor id: Tacna 27.	origin: Peru.	Cultivated.	Seed.
PI 515112	donor id: Tacna 28.	origin: Peru.	Cultivated.	Seed.
PI 515113	donor id: Tacna 50.	origin: Peru.	Cultivated.	Seed.
PI 515114	donor id: Tacna 51.	origin: Peru.	Cultivated.	Seed.
PI 515115	donor id: Tacna 52.	origin: Peru.	Cultivated.	Seed.
PI 515116	donor id: Tacna 55.	origin: Peru.	Cultivated.	Seed.
PI 515117	donor id: Tacna 56.	origin: Peru.	Cultivated.	Seed.
PI 515118	donor id: Tacna 60.	origin: Peru.	Cultivated.	Seed.
PI 515119	donor id: Ucayali 19.	origin: Peru.	Cultivated.	Seed.
PI 515120	donor id: Ucayali 20.	origin: Peru.	Cultivated.	Seed.
PI 515121	donor id: Ucayali 21.	origin: Peru.	Cultivated.	Seed.
PI 515122	donor id: Ucayali 22.	origin: Peru.	Cultivated.	Seed.

PI 514722 to 515134-continued

PI 515123	donor id: Ucayali 24.	origin: Peru.	Cultivated.	Seed.
PI 515124	donor id: Ucayali 25.	origin: Peru.	Cultivated.	Seed.
PI 515125	donor id: Ucayali 26.	origin: Peru.	Cultivated.	Seed.
PI 515126	donor id: Ucayali 27.	origin: Peru.	Cultivated.	Seed.
PI 515127	donor id: Ucayali 28.	origin: Peru.	Cultivated.	Seed.
PI 515128	donor id: Ucayali 29.	origin: Peru.	Cultivated.	Seed.
PI 515129	donor id: Ucayali 30.	origin: Peru.	Cultivated.	Seed.
PI 515130	donor id: Ucayali 31.	origin: Peru.	Cultivated.	Seed.
PI 515131	donor id: Ucayali 32.	origin: Peru.	Cultivated.	Seed.
PI 515132	donor id: Ucayali 33.	origin: Peru.	Cultivated.	Seed.
PI 515133	donor id: Ucayali 34.	origin: Peru.	Cultivated.	Seed.
PI 515134	donor id: Ucayali 35.	origin: Peru.	Cultivated.	Seed.

PI 515135 to 515579. Zea mays L. POACEAE Corn

**Donated by:** Villalpando, M.G., Instituto Nacional de Investigaciones, Forestales y Agropecuarias, Apartados Postal 6-882 y 6-883, Mexico, D.F., Mexico. Received December 22, 1987.

PI 515135	donor id: Aguascalientes 10.	origin: Mexico.	Cultivated.	Seed.
PI 515136	donor id: Aguascalientes 12.	origin: Mexico.	Cultivated.	Seed.
PI 515137	donor id: Aguascalientes 17.	origin: Mexico.	Cultivated.	Seed.
PI 515138	donor id: Aguascalientes 18.	origin: Mexico.	Cultivated.	Seed.
PI 515139	donor id: Aguascalientes 22.	origin: Mexico.	Cultivated.	Seed.
PI 515140	donor id: Aguascalientes 23.	origin: Mexico.	Cultivated.	Seed.
PI 515141	donor id: Aguascalientes 24.	origin: Mexico.	Cultivated.	Seed.

PI 515135 to 515579-continued

PI 515142	donor id: Aguascalientes	29.	origin: Mexico.	
	Cultivated.	Seed.		
PI 515143	donor id: Aguascalientes	31.	origin: Mexico.	
	Cultivated.	Seed.		
PI 515144	donor id: Aguascalientes	32.	origin: Mexico.	
	Cultivated.	Seed.		
PI 515145	donor id: Aguascalientes	44.	origin: Mexico.	
	Cultivated.	Seed.		
PI 515146	donor id: Aguascalientes	50.	origin: Mexico.	
	Cultivated.	Seed.		
PI 515147	donor id: Aguascalientes	55.	origin: Mexico.	
	Cultivated.	Seed.		
PI 515148	donor id: Baja California Sur.	14.	origin: Mexico.	
	Cultivated.	Seed.		
PI 515149	donor id: Chiapas	16.	origin: Mexico.	Cultivated.
	Seed.			
PI 515150	donor id: Chiapas	37.	origin: Mexico.	Cultivated.
	Seed.			
PI 515151	donor id: Chiapas	119.	origin: Mexico.	Cultivated.
	Seed.			
PI 515152	donor id: Chiapas	152.	origin: Mexico.	Cultivated.
	Seed.			
PI 515153	donor id: Chiapas	248.	origin: Mexico.	Cultivated.
	Seed.			
PI 515154	donor id: Chiapas	287.	origin: Mexico.	Cultivated.
	Seed.			
PI 515155	donor id: Chiapas	297.	origin: Mexico.	Cultivated.
	Seed.			
PI 515156	donor id: Chiapas	336.	origin: Mexico.	Cultivated.
	Seed.			
PI 515157	donor id: Chiapas	400.	origin: Mexico.	Cultivated.
	Seed.			
PI 515158	donor id: Chiapas	408.	origin: Mexico.	Cultivated.
	Seed.			



PI 515135 to 515579-continued

PI 515159	donor id: Chiapas 615.	origin: Mexico.	Cultivated. Seed.
PI 515160	donor id: Chiapas 748.	origin: Mexico.	Cultivated. Seed.
PI 515161	donor id: Chiapas 752.	origin: Mexico.	Cultivated. Seed.
PI 515162	donor id: Chiapas 753.	origin: Mexico.	Cultivated. Seed.
PI 515163	donor id: Chiapas 754.	origin: Mexico.	Cultivated. Seed.
PI 515164	donor id: Chiapas 755.	origin: Mexico.	Cultivated. Seed.
PI 515165	donor id: Chiapas 768.	origin: Mexico.	Cultivated. Seed.
PI 515166	donor id: Chihuahua 45.	origin: Mexico.	Cultivated. Seed.
PI 515167	donor id: Chihuahua 57.	origin: Mexico.	Cultivated. Seed.
PI 515168	donor id: Chihuahua 66.	origin: Mexico.	Cultivated. Seed.
PI 515169	donor id: Chihuahua 75.	origin: Mexico.	Cultivated. Seed.
PI 515170	donor id: Chihuahua 77.	origin: Mexico.	Cultivated. Seed.
PI 515171	donor id: Chihuahua 106.	origin: Mexico.	Cultivated. Seed.
PI 515172	donor id: Chihuahua 112.	origin: Mexico.	Cultivated. Seed.
PI 515173	donor id: Chihuahua 161.	origin: Mexico.	Cultivated. Seed.
PI 515174	donor id: Chihuahua 236.	origin: Mexico.	Cultivated. Seed.
PI 515175	donor id: Chihuahua 274.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515176	donor id: Chihuahua 286.	origin: Mexico.	Cultivated. Seed.
PI 515177	donor id: Chihuahua 319.	origin: Mexico.	Cultivated. Seed.
PI 515178	donor id: Chihuahua 338.	origin: Mexico.	Cultivated. Seed.
PI 515179	donor id: Coahuila 18.	origin: Mexico.	Cultivated. Seed.
PI 515180	donor id: Coahuila 20.	origin: Mexico.	Cultivated. Seed.
PI 515181	donor id: Coahuila 26.	origin: Mexico.	Cultivated. Seed.
PI 515182	donor id: Coahuila 30.	origin: Mexico.	Cultivated. Seed.
PI 515183	donor id: Coahuila 41.	origin: Mexico.	Cultivated. Seed.
PI 515184	donor id: Coahuila 43.	origin: Mexico.	Cultivated. Seed.
PI 515185	donor id: Coahuila 46.	origin: Mexico.	Cultivated. Seed.
PI 515186	donor id: Coahuila 68.	origin: Mexico.	Cultivated. Seed.
PI 515187	donor id: Coahuila 71.	origin: Mexico.	Cultivated. Seed.
PI 515188	donor id: Coahuila 72.	origin: Mexico.	Cultivated. Seed.
PI 515189	donor id: Coahuila 78.	origin: Mexico.	Cultivated. Seed.
PI 515190	donor id: Coahuila 89.	origin: Mexico.	Cultivated. Seed.
PI 515191	donor id: Coahuila 91.	origin: Mexico.	Cultivated. Seed.
PI 515192	donor id: Coahuila 93.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515193	donor id: Coahuila 97.	origin: Mexico.	Cultivated. Seed.
PI 515194	donor id: Coahuila 112.	origin: Mexico.	Cultivated. Seed.
PI 515195	donor id: Coahuila 122.	origin: Mexico.	Cultivated. Seed.
PI 515196	donor id: Durango 8.	origin: Mexico.	Cultivated. Seed.
PI 515197	donor id: Durango 20.	origin: Mexico.	Cultivated. Seed.
PI 515198	donor id: Durango 26.	origin: Mexico.	Cultivated. Seed.
PI 515199	donor id: Durango 32.	origin: Mexico.	Cultivated. Seed.
PI 515200	donor id: Durango 34.	origin: Mexico.	Cultivated. Seed.
PI 515201	donor id: Durango 93.	origin: Mexico.	Cultivated. Seed.
PI 515202	donor id: Durango 111.	origin: Mexico.	Cultivated. Seed.
PI 515203	donor id: Durango 155.	origin: Mexico.	Cultivated. Seed.
PI 515204	donor id: Durango 157.	origin: Mexico.	Cultivated. Seed.
PI 515205	donor id: Durango 173.	origin: Mexico.	Cultivated. Seed.
PI 515206	donor id: Guanajuato 32.	origin: Mexico.	Cultivated. Seed.
PI 515207	donor id: Guanajuato 63.	origin: Mexico.	Cultivated. Seed.
PI 515208	donor id: Guanajuato 93.	origin: Mexico.	Cultivated. Seed.
PI 515209	donor id: Guanajuato 94.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515210	donor id: Guanajuato 108. Seed.	origin: Mexico.	Cultivated.
PI 515211	donor id: Guanajuato 126. Seed.	origin: Mexico.	Cultivated.
PI 515212	donor id: Guanajuato 135. Seed.	origin: Mexico.	Cultivated.
PI 515213	donor id: Guanajuato 140. Seed.	origin: Mexico.	Cultivated.
PI 515214	donor id: Guanajuato 151. Seed.	origin: Mexico.	Cultivated.
PI 515215	donor id: Guanajuato 152. Seed.	origin: Mexico.	Cultivated.
PI 515216	donor id: Guanajuato 163. Seed.	origin: Mexico.	Cultivated.
PI 515217	donor id: Guanajuato 171. Seed.	origin: Mexico.	Cultivated.
PI 515218	donor id: Guanajuato 174. Seed.	origin: Mexico.	Cultivated.
PI 515219	donor id: Guanajuato 179. Seed.	origin: Mexico.	Cultivated.
PI 515220	donor id: Guanajuato 195. Seed.	origin: Mexico.	Cultivated.
PI 515221	donor id: Guanajuato 197. Seed.	origin: Mexico.	Cultivated.
PI 515222	donor id: Guanajuato 201. Seed.	origin: Mexico.	Cultivated.
PI 515223	donor id: Guanajuato 203. Seed.	origin: Mexico.	Cultivated.
PI 515224	donor id: Guanajuato 211. Seed.	origin: Mexico.	Cultivated.
PI 515225	donor id: Guanajuato 289. Seed.	origin: Mexico.	Cultivated.
PI 515226	donor id: Guanajuato 292. Seed.	origin: Mexico.	Cultivated.

PI 515135 to 515579-continued

PI 515227	donor id: Guanajuato 293. Seed.	origin: Mexico.	Cultivated.
PI 515228	donor id: Guanajuato 294. Seed.	origin: Mexico.	Cultivated.
PI 515229	donor id: Guanajuato 305. Seed.	origin: Mexico.	Cultivated.
PI 515230	donor id: Guanajuato 306. Seed.	origin: Mexico.	Cultivated.
PI 515231	donor id: Guanajuato 307. Seed.	origin: Mexico.	Cultivated.
PI 515232	donor id: Guanajuato 308. Seed.	origin: Mexico.	Cultivated.
PI 515233	donor id: Guanajuato 309. Seed.	origin: Mexico.	Cultivated.
PI 515234	donor id: Guanajuato 314. Seed.	origin: Mexico.	Cultivated.
PI 515235	donor id: Guanajuato 315. Seed.	origin: Mexico.	Cultivated.
PI 515236	donor id: Guanajuato 316. Seed.	origin: Mexico.	Cultivated.
PI 515237	donor id: Guanajuato 317. Seed.	origin: Mexico.	Cultivated.
PI 515238	donor id: Guanajuato 318. Seed.	origin: Mexico.	Cultivated.
PI 515239	donor id: Guanajuato 319. Seed.	origin: Mexico.	Cultivated.
PI 515240	donor id: Guanajuato 323. Seed.	origin: Mexico.	Cultivated.
PI 515241	donor id: Guanajuato 324. Seed.	origin: Mexico.	Cultivated.
PI 515242	donor id: Guanajuato 327. Seed.	origin: Mexico.	Cultivated.
PI 515243	donor id: Guanajuato 328. Seed.	origin: Mexico.	Cultivated.

PI 515135 to 515579-continued

PI 515244	donor id: Guanajuato 329.	origin: Mexico.	Cultivated. Seed.
PI 515245	donor id: Guanajuato 330.	origin: Mexico.	Cultivated. Seed.
PI 515246	donor id: Guanajuato 335.	origin: Mexico.	Cultivated. Seed.
PI 515247	donor id: Guanajuato 337.	origin: Mexico.	Cultivated. Seed.
PI 515248	donor id: Guanajuato 343.	origin: Mexico.	Cultivated. Seed.
PI 515249	donor id: Guanajuato 344.	origin: Mexico.	Cultivated. Seed.
PI 515250	donor id: Guanajuato 345.	origin: Mexico.	Cultivated. Seed.
PI 515251	donor id: Guanajuato 413.	origin: Mexico.	Cultivated. Seed.
PI 515252	donor id: Guerrero 136.	origin: Mexico.	Cultivated. Seed.
PI 515253	donor id: Guerrero 142.	origin: Mexico.	Cultivated. Seed.
PI 515254	donor id: Guerrero 223.	origin: Mexico.	Cultivated. Seed.
PI 515255	donor id: Guerrero 255.	origin: Mexico.	Cultivated. Seed.
PI 515256	donor id: Guerrero 324.	origin: Mexico.	Cultivated. Seed.
PI 515257	donor id: Guerrero 353.	origin: Mexico.	Cultivated. Seed.
PI 515258	donor id: Guerrero 355.	origin: Mexico.	Cultivated. Seed.
PI 515259	donor id: Guerrero 358.	origin: Mexico.	Cultivated. Seed.
PI 515260	donor id: Guerrero 364.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515261	donor id: Hidalgo Seed.	1.	origin: Mexico.	Cultivated.
PI 515262	donor id: Hidalgo Seed.	5.	origin: Mexico.	Cultivated.
PI 515263	donor id: Hidalgo Seed.	11.	origin: Mexico.	Cultivated.
PI 515264	donor id: Hidalgo Seed.	19.	origin: Mexico.	Cultivated.
PI 515265	donor id: Hidalgo Seed.	26.	origin: Mexico.	Cultivated.
PI 515266	donor id: Hidalgo Seed.	37.	origin: Mexico.	Cultivated.
PI 515267	donor id: Hidalgo Seed.	40.	origin: Mexico.	Cultivated.
PI 515268	donor id: Hidalgo Seed.	44.	origin: Mexico.	Cultivated.
PI 515269	donor id: Hidalgo Seed.	69.	origin: Mexico.	Cultivated.
PI 515270	donor id: Hidalgo Seed.	96.	origin: Mexico.	Cultivated.
PI 515271	donor id: Hidalgo Seed.	99.	origin: Mexico.	Cultivated.
PI 515272	donor id: Hidalgo Seed.	100.	origin: Mexico.	Cultivated.
PI 515273	donor id: Hidalgo origin: Mexico. Cultivated. Seed.	101.	origin: Mexico.	historical
PI 515274	donor id: Hidalgo Seed.	107.	origin: Mexico.	Cultivated.
PI 515275	donor id: Hidalgo Seed.	110.	origin: Mexico.	Cultivated.
PI 515276	donor id: Hidalgo Seed.	123.	origin: Mexico.	Cultivated.
PI 515277	donor id: Hidalgo Seed.	142.	origin: Mexico.	Cultivated.

PI 515135 to 515579-continued

PI 515278	donor id: Hidalgo 153.	origin: Mexico.	Cultivated.
	Seed.		
PI 515279	donor id: Hidalgo 163.	origin: Mexico.	Cultivated.
	Seed.		
PI 515280	donor id: Hidalgo 215.	origin: Mexico.	Cultivated.
	Seed.		
PI 515281	donor id: Hidalgo 218.	origin: Mexico.	Cultivated.
	Seed.		
PI 515282	donor id: Hidalgo 231.	origin: Mexico.	Cultivated.
	Seed.		
PI 515283	donor id: Hidalgo 236.	origin: Mexico.	Cultivated.
	Seed.		
PI 515284	donor id: Jalisco 10.	origin: Mexico.	Cultivated.
	Seed.		
PI 515285	donor id: Jalisco 29.	origin: Mexico.	Cultivated.
	Seed.		
PI 515286	donor id: Jalisco 58.	origin: Mexico.	Cultivated.
	Seed.		
PI 515287	donor id: Jalisco 91.	origin: Mexico.	Cultivated.
	Seed.		
PI 515288	donor id: Jalisco 97.	origin: Mexico.	Cultivated.
	Seed.		
PI 515289	donor id: Jalisco 169.	origin: Mexico.	Cultivated.
	Seed.		
PI 515290	donor id: Jalisco 235.	origin: Mexico.	Cultivated.
	Seed.		
PI 515291	donor id: Jalisco 244.	origin: Mexico.	Cultivated.
	Seed.		
PI 515292	donor id: Jalisco 267.	origin: Mexico.	Cultivated.
	Seed.		
PI 515293	donor id: Jalisco 268.	origin: Mexico.	Cultivated.
	Seed.		
PI 515294	donor id: Jalisco 309.	origin: Mexico.	Cultivated.
	Seed.		



PI 515135 to 515579-continued

PI 515295	donor id: Jalisco 310.	origin: Mexico.	Cultivated.
	Seed.		
PI 515296	donor id: Jalisco 311.	origin: Mexico.	Cultivated.
	Seed.		
PI 515297	donor id: Jalisco 531.	origin: Mexico.	Cultivated.
	Seed.		
PI 515298	donor id: Jalisco 547.	origin: Mexico.	Cultivated.
	Seed.		
PI 515299	donor id: Jalisco 563.	origin: Mexico.	Cultivated.
	Seed.		
PI 515300	donor id: Jalisco 564.	origin: Mexico.	Cultivated.
	Seed.		
PI 515301	donor id: Jalisco 569.	origin: Mexico.	Cultivated.
	Seed.		
PI 515302	donor id: Jalisco 708.	origin: Mexico.	Cultivated.
	Seed.		
PI 515303	donor id: Mexico 156.	origin: Mexico.	Cultivated.
	Seed.		
PI 515304	donor id: Mexico 292.	origin: Mexico.	Cultivated.
	Seed.		
PI 515305	donor id: Mexico 293.	origin: Mexico.	Cultivated.
	Seed.		
PI 515306	donor id: Mexico 299.	origin: Mexico.	Cultivated.
	Seed.		
PI 515307	donor id: Mexico 301.	origin: Mexico.	Cultivated.
	Seed.		
PI 515308	donor id: Mexico 302.	origin: Mexico.	Cultivated.
	Seed.		
PI 515309	donor id: Mexico 332.	origin: Mexico.	Cultivated.
	Seed.		
PI 515310	donor id: Mexico 334.	origin: Mexico.	Cultivated.
	Seed.		
PI 515311	donor id: Mexico 340.	origin: Mexico.	Cultivated.
	Seed.		

PI 515135 to 515579-continued

PI 515312	donor id: Mexico 344.	origin: Mexico.	Cultivated. Seed.
PI 515313	donor id: Mexico 351.	origin: Mexico.	Cultivated. Seed.
PI 515314	donor id: Mexico 357.	origin: Mexico.	Cultivated. Seed.
PI 515315	donor id: Mexico 367.	origin: Mexico.	Cultivated. Seed.
PI 515316	donor id: Mexico 425A.	origin: Mexico.	Cultivated. Seed.
PI 515317	donor id: Michoacan 24.	origin: Mexico.	Cultivated. Seed.
PI 515318	donor id: Michoacan 27.	origin: Mexico.	Cultivated. Seed.
PI 515319	donor id: Michoacan 92.	origin: Mexico.	Cultivated. Seed.
PI 515320	donor id: Michoacan 94.	origin: Mexico.	Cultivated. Seed.
PI 515321	donor id: Michoacan 158.	origin: Mexico.	Cultivated. Seed.
PI 515322	donor id: Michoacan 161.	origin: Mexico.	Cultivated. Seed.
PI 515323	donor id: Michoacan 162.	origin: Mexico.	Cultivated. Seed.
PI 515324	donor id: Michoacan 164.	origin: Mexico.	Cultivated. Seed.
PI 515325	donor id: Michoacan 171.	origin: Mexico.	Cultivated. Seed.
PI 515326	donor id: Michoacan 180.	origin: Mexico.	Cultivated. Seed.
PI 515327	donor id: Michoacan 206.	origin: Mexico.	Cultivated. Seed.
PI 515328	donor id: Michoacan 228.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515329	donor id: Michoacan 258.	origin: Mexico.	Cultivated. Seed.
PI 515330	donor id: Michoacan 272.	origin: Mexico.	Cultivated. Seed.
PI 515331	donor id: Michoacan 280.	origin: Mexico.	Cultivated. Seed.
PI 515332	donor id: Michoacan 309.	origin: Mexico.	Cultivated. Seed.
PI 515333	donor id: Michoacan 472.	origin: Mexico.	Cultivated. Seed.
PI 515334	donor id: Michoacan 514.	origin: Mexico.	Cultivated. Seed.
PI 515335	donor id: Morelos 7.	origin: Mexico.	Cultivated. Seed.
PI 515336	donor id: Morelos 16.	origin: Mexico.	Cultivated. Seed.
PI 515337	donor id: Morelos 37.	origin: Mexico.	Cultivated. Seed.
PI 515338	donor id: Nayarit 1.	origin: Mexico.	Cultivated. Seed.
PI 515339	donor id: Nayarit 23.	origin: Mexico.	Cultivated. Seed.
PI 515340	donor id: Nayarit 63.	origin: Mexico.	Cultivated. Seed.
PI 515341	donor id: Nayarit 69.	origin: Mexico.	Cultivated. Seed.
PI 515342	donor id: Nayarit 77.	origin: Mexico.	Cultivated. Seed.
PI 515343	donor id: Nayarit 81.	origin: Mexico.	Cultivated. Seed.
PI 515344	donor id: Nayarit 89.	origin: Mexico.	Cultivated. Seed.
PI 515345	donor id: Nayarit 98.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515346	donor id: Nayarit 111. Seed.	origin: Mexico.	Cultivated.
PI 515347	donor id: Nayarit 113. Seed.	origin: Mexico.	Cultivated.
PI 515348	donor id: Nayarit 118. Seed.	origin: Mexico.	Cultivated.
PI 515349	donor id: Nayarit 121. Seed.	origin: Mexico.	Cultivated.
PI 515350	donor id: Nayarit 122. Seed.	origin: Mexico.	Cultivated.
PI 515351	donor id: Nayarit 125. Seed.	origin: Mexico.	Cultivated.
PI 515352	donor id: Nayarit 126. Seed.	origin: Mexico.	Cultivated.
PI 515353	donor id: Nayarit 129. Seed.	origin: Mexico.	Cultivated.
PI 515354	donor id: Nayarit 137. Seed.	origin: Mexico.	Cultivated.
PI 515355	donor id: Nayarit 141. Seed.	origin: Mexico.	Cultivated.
PI 515356	donor id: Nayarit 146. Seed.	origin: Mexico.	Cultivated.
PI 515357	donor id: Nayarit 151. Seed.	origin: Mexico.	Cultivated.
PI 515358	donor id: Nayarit 160. Seed.	origin: Mexico.	Cultivated.
PI 515359	donor id: Nayarit 169. Seed.	origin: Mexico.	Cultivated.
PI 515360	donor id: Nayarit 180. Seed.	origin: Mexico.	Cultivated.
PI 515361	donor id: Nayarit 184. Seed.	origin: Mexico.	Cultivated.
PI 515362	donor id: Nayarit 197. Seed.	origin: Mexico.	Cultivated.

PI 515135 to 515579-continued

PI 515363	donor id: Nayarit 198.	origin: Mexico.	Cultivated. Seed.
PI 515364	donor id: Nayarit 207.	origin: Mexico.	Cultivated. Seed.
PI 515365	donor id: Nayarit 210.	origin: Mexico.	Cultivated. Seed.
PI 515366	donor id: Nayarit 213.	origin: Mexico.	Cultivated. Seed.
PI 515367	donor id: Nayarit 215.	origin: Mexico.	Cultivated. Seed.
PI 515368	donor id: Nayarit 219.	origin: Mexico.	Cultivated. Seed.
PI 515369	donor id: Nayarit 220.	origin: Mexico.	Cultivated. Seed.
PI 515370	donor id: Nayarit 223.	origin: Mexico.	Cultivated. Seed.
PI 515371	donor id: Nayarit 224.	origin: Mexico.	Cultivated. Seed.
PI 515372	donor id: Nayarit 226.	origin: Mexico.	Cultivated. Seed.
PI 515373	donor id: Nayarit 228.	origin: Mexico.	Cultivated. Seed.
PI 515374	donor id: Nayarit 233.	origin: Mexico.	Cultivated. Seed.
PI 515375	donor id: Nayarit 234.	origin: Mexico.	Cultivated. Seed.
PI 515376	donor id: Nayarit 240.	origin: Mexico.	Cultivated. Seed.
PI 515377	donor id: Nayarit 248.	origin: Mexico.	Cultivated. Seed.
PI 515378	donor id: Nayarit 251.	origin: Mexico.	Cultivated. Seed.
PI 515379	donor id: Nayarit 261.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515380	donor id: Nayarit 268.	origin: Mexico.	Cultivated. Seed.
PI 515381	donor id: Nayarit 269.	origin: Mexico.	Cultivated. Seed.
PI 515382	donor id: Nayarit 279.	origin: Mexico.	Cultivated. Seed.
PI 515383	donor id: Nayarit 280.	origin: Mexico.	Cultivated. Seed.
PI 515384	donor id: Nayarit 282.	origin: Mexico.	Cultivated. Seed.
PI 515385	donor id: Nuevo Leon 9.	origin: Mexico.	Cultivated. Seed.
PI 515386	donor id: Nuevo Leon 18.	origin: Mexico.	Cultivated. Seed.
PI 515387	donor id: Nuevo Leon 28.	origin: Mexico.	Cultivated. Seed.
PI 515388	donor id: Nuevo Leon 29.	origin: Mexico.	Cultivated. Seed.
PI 515389	donor id: Nuevo Leon 45.	origin: Mexico.	Cultivated. Seed.
PI 515390	donor id: Oaxaca 26.	origin: Mexico.	Cultivated. Seed.
PI 515391	donor id: Oaxaca 87.	origin: Mexico.	Cultivated. Seed.
PI 515392	donor id: Oaxaca 107.	origin: Mexico.	Cultivated. Seed.
PI 515393	donor id: Oaxaca 114.	origin: Mexico.	Cultivated. Seed.
PI 515394	donor id: Oaxaca 117.	origin: Mexico.	Cultivated. Seed.
PI 515395	donor id: Oaxaca 119.	origin: Mexico.	Cultivated. Seed.
PI 515396	donor id: Oaxaca 120.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515397	donor id: Oaxaca 122.	origin: Mexico.	Cultivated.
	Seed.		
PI 515398	donor id: Oaxaca 200.	origin: Mexico.	Cultivated.
	Seed.		
PI 515399	donor id: Oaxaca 318.	origin: Mexico.	Cultivated.
	Seed.		
PI 515400	donor id: Oaxaca 362.	origin: Mexico.	Cultivated.
	Seed.		
PI 515401	donor id: Puebla 11.	origin: Mexico.	Cultivated.
	Seed.		
PI 515402	donor id: Puebla 20.	origin: Mexico.	Cultivated.
	Seed.		
PI 515403	donor id: Puebla 63.	origin: Mexico.	Cultivated.
	Seed.		
PI 515404	donor id: Puebla 64.	origin: Mexico.	Cultivated.
	Seed.		
PI 515405	donor id: Puebla 66.	origin: Mexico.	Cultivated.
	Seed.		
PI 515406	donor id: Puebla 67.	origin: Mexico.	Cultivated.
	Seed.		
PI 515407	donor id: Puebla 106.	origin: Mexico.	Cultivated.
	Seed.		
PI 515408	donor id: Puebla 112.	origin: Mexico.	Cultivated.
	Seed.		
PI 515409	donor id: Puebla 125.	origin: Mexico.	Cultivated.
	Seed.		
PI 515410	donor id: Puebla 128.	origin: Mexico.	Cultivated.
	Seed.		
PI 515411	donor id: Puebla 139.	origin: Mexico.	Cultivated.
	Seed.		
PI 515412	donor id: Puebla 144.	origin: Mexico.	Cultivated.
	Seed.		
PI 515413	donor id: Puebla 145.	origin: Mexico.	Cultivated.
	Seed.		

PI 515135 to 515579-continued

PI 515414	donor id: Puebla 160. Seed.	origin: Mexico.	Cultivated.
PI 515415	donor id: Puebla 162. Seed.	origin: Mexico.	Cultivated.
PI 515416	donor id: Puebla 163. Seed.	origin: Mexico.	Cultivated.
PI 515417	donor id: Puebla 166. Seed.	origin: Mexico.	Cultivated.
PI 515418	donor id: Puebla 168. Seed.	origin: Mexico.	Cultivated.
PI 515419	donor id: Puebla 175. Seed.	origin: Mexico.	Cultivated.
PI 515420	donor id: Puebla 181. Seed.	origin: Mexico.	Cultivated.
PI 515421	donor id: Puebla 197. Seed.	origin: Mexico.	Cultivated.
PI 515422	donor id: Puebla 202. Seed.	origin: Mexico.	Cultivated.
PI 515423	donor id: Puebla 204. Seed.	origin: Mexico.	Cultivated.
PI 515424	donor id: Puebla 212. Seed.	origin: Mexico.	Cultivated.
PI 515425	donor id: Puebla 218. Seed.	origin: Mexico.	Cultivated.
PI 515426	donor id: Puebla 240. Seed.	origin: Mexico.	Cultivated.
PI 515427	donor id: Puebla 248. Seed.	origin: Mexico.	Cultivated.
PI 515428	donor id: Puebla 249. Seed.	origin: Mexico.	Cultivated.
PI 515429	donor id: Puebla 254. Seed.	origin: Mexico.	Cultivated.
PI 515430	donor id: Puebla 271. Seed.	origin: Mexico.	Cultivated.



PI 515135 to 515579-continued

PI 515431	donor id: Puebla 288.	origin: Mexico.	Cultivated. Seed.
PI 515432	donor id: Puebla 301.	origin: Mexico.	Cultivated. Seed.
PI 515433	donor id: Puebla 308.	origin: Mexico.	Cultivated. Seed.
PI 515434	donor id: Puebla 314.	origin: Mexico.	Cultivated. Seed.
PI 515435	donor id: Puebla 327.	origin: Mexico.	Cultivated. Seed.
PI 515436	donor id: Puebla 654.	origin: Mexico.	Cultivated. Seed.
PI 515437	donor id: Puebla 891.	origin: Mexico.	Cultivated. Seed.
PI 515438	donor id: Queretaro 15.	origin: Mexico.	Cultivated. Seed.
PI 515439	donor id: Queretaro 22.	origin: Mexico.	Cultivated. Seed.
PI 515440	donor id: Queretaro 27.	origin: Mexico.	Cultivated. Seed.
PI 515441	donor id: Queretaro 33.	origin: Mexico.	Cultivated. Seed.
PI 515442	donor id: Queretaro 48.	origin: Mexico.	Cultivated. Seed.
PI 515443	donor id: Queretaro 57.	origin: Mexico.	Cultivated. Seed.
PI 515444	donor id: Queretaro 59.	origin: Mexico.	Cultivated. Seed.
PI 515445	donor id: San Luis Potosi 15.	origin: Mexico.	Cultivated. Seed.
PI 515446	donor id: San Luis Potosi 40.	origin: Mexico.	Cultivated. Seed.
PI 515447	donor id: San Luis Potosi 51.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515448	donor id: San Luis Potosi 82.	origin: Mexico.	
	Cultivated.	Seed.	
PI 515449	donor id: San Luis Potosi 83.	origin: Mexico.	
	Cultivated.	Seed.	
PI 515450	donor id: San Luis Potosi 175.	origin: Mexico.	
	Cultivated.	Seed.	
PI 515451	donor id: San Luis Potosi 180.	origin: Mexico.	
	Cultivated.	Seed.	
PI 515452	donor id: San Luis Potosi 181.	origin: Mexico.	
	Cultivated.	Seed.	
PI 515453	donor id: Sonora 10.	origin: Mexico.	Cultivated.
	Seed.		
PI 515454	donor id: Sonora 22.	origin: Mexico.	Cultivated.
	Seed.		
PI 515455	donor id: Sonora 30.	origin: Mexico.	Cultivated.
	Seed.		
PI 515456	donor id: Sonora 40.	origin: Mexico.	Cultivated.
	Seed.		
PI 515457	donor id: Sonora 41.	origin: Mexico.	Cultivated.
	Seed.		
PI 515458	donor id: Sonora 52.	origin: Mexico.	Cultivated.
	Seed.		
PI 515459	donor id: Sonora 73.	origin: Mexico.	Cultivated.
	Seed.		
PI 515460	donor id: Sonora 87.	origin: Mexico.	Cultivated.
	Seed.		
PI 515461	donor id: Sonora 101.	origin: Mexico.	Cultivated.
	Seed.		
PI 515462	donor id: Sonora 108.	origin: Mexico.	Cultivated.
	Seed.		
PI 515463	donor id: Sonora 121.	origin: Mexico.	Cultivated.
	Seed.		
PI 515464	donor id: Sonora 124.	origin: Mexico.	Cultivated.
	Seed.		

PI 515135 to 515579-continued

PI 515465	donor id: Sonora 126.	origin: Mexico.	Cultivated.
	Seed.		
PI 515466	donor id: Sonora 160.	origin: Mexico.	Cultivated.
	Seed.		
PI 515467	donor id: Sonora 172.	origin: Mexico.	Cultivated.
	Seed.		
PI 515468	donor id: Sonora 173.	origin: Mexico.	Cultivated.
	Seed.		
PI 515469	donor id: Tabasco 8.	origin: Mexico.	Cultivated.
	Seed.		
PI 515470	donor id: Tabasco 9.	origin: Mexico.	Cultivated.
	Seed.		
PI 515471	donor id: Tabasco 10.	origin: Mexico.	Cultivated.
	Seed.		
PI 515472	donor id: Tabasco 27.	origin: Mexico.	Cultivated.
	Seed.		
PI 515473	donor id: Tamaulipas 50.	origin: Mexico.	Cultivated.
	Seed.		
PI 515474	donor id: Tamaulipas 52.	origin: Mexico.	Cultivated.
	Seed.		
PI 515475	donor id: Tamaulipas 57.	origin: Mexico.	Cultivated.
	Seed.		
PI 515476	donor id: Tamaulipas 63.	origin: Mexico.	Cultivated.
	Seed.		
PI 515477	donor id: Tamaulipas 78.	origin: Mexico.	Cultivated.
	Seed.		
PI 515478	donor id: Tamaulipas 85.	origin: Mexico.	Cultivated.
	Seed.		
PI 515479	donor id: Tamaulipas 93.	origin: Mexico.	Cultivated.
	Seed.		
PI 515480	donor id: Tamaulipas 107.	origin: Mexico.	Cultivated.
	Seed.		
PI 515481	donor id: Tamaulipas 112.	origin: Mexico.	Cultivated.
	Seed.		

PI 515135 to 515579-continued

PI 515482	donor id: Tamaulipas 113.	origin: Mexico.	Cultivated. Seed.
PI 515483	donor id: Tamaulipas 114.	origin: Mexico.	Cultivated. Seed.
PI 515484	donor id: Tamaulipas 116.	origin: Mexico.	Cultivated. Seed.
PI 515485	donor id: Tamaulipas 119.	origin: Mexico.	Cultivated. Seed.
PI 515486	donor id: Tamaulipas 135.	origin: Mexico.	Cultivated. Seed.
PI 515487	donor id: Tlaxcala 6.	origin: Mexico.	Cultivated. Seed.
PI 515488	donor id: Tlaxcala 9.	origin: Mexico.	Cultivated. Seed.
PI 515489	donor id: Tlaxcala 10.	origin: Mexico.	Cultivated. Seed.
PI 515490	donor id: Tlaxcala 14.	origin: Mexico.	Cultivated. Seed.
PI 515491	donor id: Tlaxcala 15.	origin: Mexico.	Cultivated. Seed.
PI 515492	donor id: Tlaxcala 21.	origin: Mexico.	Cultivated. Seed.
PI 515493	donor id: Tlaxcala 22.	origin: Mexico.	Cultivated. Seed.
PI 515494	donor id: Tlaxcala 26.	origin: Mexico.	Cultivated. Seed.
PI 515495	donor id: Tlaxcala 27.	origin: Mexico.	Cultivated. Seed.
PI 515496	donor id: Tlaxcala 37.	origin: Mexico.	Cultivated. Seed.
PI 515497	donor id: Tlaxcala 38.	origin: Mexico.	Cultivated. Seed.
PI 515498	donor id: Tlaxcala 39.	origin: Mexico.	Cultivated. Seed.

PI 515135 to 515579-continued

PI 515499	donor id: Tlaxcala	40.	origin: Mexico.	Cultivated.
	Seed.			
PI 515500	donor id: Tlaxcala	42.	origin: Mexico.	Cultivated.
	Seed.			
PI 515501	donor id: Tlaxcala	44.	origin: Mexico.	Cultivated.
	Seed.			
PI 515502	donor id: Tlaxcala	47.	origin: Mexico.	Cultivated.
	Seed.			
PI 515503	donor id: Tlaxcala	53.	origin: Mexico.	Cultivated.
	Seed.			
PI 515504	donor id: Tlaxcala	54.	origin: Mexico.	Cultivated.
	Seed.			
PI 515505	donor id: Tlaxcala	55.	origin: Mexico.	Cultivated.
	Seed.			
PI 515506	donor id: Tlaxcala	64.	origin: Mexico.	Cultivated.
	Seed.			
PI 515507	donor id: Tlaxcala	70.	origin: Mexico.	Cultivated.
	Seed.			
PI 515508	donor id: Tlaxcala	73.	origin: Mexico.	Cultivated.
	Seed.			
PI 515509	donor id: Tlaxcala	87.	origin: Mexico.	Cultivated.
	Seed.			
PI 515510	donor id: Tlaxcala	96.	origin: Mexico.	Cultivated.
	Seed.			
PI 515511	donor id: Tlaxcala	103.	origin: Mexico.	Cultivated.
	Seed.			
PI 515512	donor id: Tlaxcala	109.	origin: Mexico.	Cultivated.
	Seed.			
PI 515513	donor id: Tlaxcala	117.	origin: Mexico.	Cultivated.
	Seed.			
PI 515514	donor id: Tlaxcala	136.	origin: Mexico.	Cultivated.
	Seed.			
PI 515515	donor id: Tlaxcala	141.	origin: Mexico.	Cultivated.
	Seed.			

PI 515135 to 515579-continued

PI 515516	donor id: Tlaxcala 159. Seed.	origin: Mexico.	Cultivated.
PI 515517	donor id: Tlaxcala 162. Seed.	origin: Mexico.	Cultivated.
PI 515518	donor id: Tlaxcala 167. Seed.	origin: Mexico.	Cultivated.
PI 515519	donor id: Tlaxcala 168. Seed.	origin: Mexico.	Cultivated.
PI 515520	donor id: Tlaxcala 183. Seed.	origin: Mexico.	Cultivated.
PI 515521	donor id: Tlaxcala 184. Seed.	origin: Mexico.	Cultivated.
PI 515522	donor id: Tlaxcala 185. Seed.	origin: Mexico.	Cultivated.
PI 515523	donor id: Tlaxcala 186. Seed.	origin: Mexico.	Cultivated.
PI 515524	donor id: Tlaxcala 200. Seed.	origin: Mexico.	Cultivated.
PI 515525	donor id: Tlaxcala 213. Seed.	origin: Mexico.	Cultivated.
PI 515526	donor id: Tlaxcala 244. Seed.	origin: Mexico.	Cultivated.
PI 515527	donor id: Tlaxcala 249. Seed.	origin: Mexico.	Cultivated.
PI 515528	donor id: Tlaxcala 250. Seed.	origin: Mexico.	Cultivated.
PI 515529	donor id: Tlaxcala 252. Seed.	origin: Mexico.	Cultivated.
PI 515530	donor id: Tlaxcala 415. Seed.	origin: Mexico.	Cultivated.
PI 515531	donor id: Veracruz 51. Seed.	origin: Mexico.	Cultivated.
PI 515532	donor id: Veracruz 55. Seed.	origin: Mexico.	Cultivated.

PI 515135 to 515579-continued

PI 515533	donor id: Veracruz	59.	origin: Mexico.	Cultivated.
	Seed.			
PI 515534	donor id: Veracruz	75.	origin: Mexico.	Cultivated.
	Seed.			
PI 515535	donor id: Veracruz	80.	origin: Mexico.	Cultivated.
	Seed.			
PI 515536	donor id: Veracruz	89.	origin: Mexico.	Cultivated.
	Seed.			
PI 515537	donor id: Veracruz	95.	origin: Mexico.	Cultivated.
	Seed.			
PI 515538	donor id: Veracruz	110.	origin: Mexico.	Cultivated.
	Seed.			
PI 515539	donor id: Veracruz	113.	origin: Mexico.	Cultivated.
	Seed.			
PI 515540	donor id: Veracruz	119.	origin: Mexico.	Cultivated.
	Seed.			
PI 515541	donor id: Veracruz	129.	origin: Mexico.	Cultivated.
	Seed.			
PI 515542	donor id: Veracruz	130.	origin: Mexico.	Cultivated.
	Seed.			
PI 515543	donor id: Veracruz	133.	origin: Mexico.	Cultivated.
	Seed.			
PI 515544	donor id: Veracruz	189.	origin: Mexico.	Cultivated.
	Seed.			
PI 515545	donor id: Veracruz	324.	origin: Mexico.	Cultivated.
	Seed.			
PI 515546	donor id: Veracruz	343.	origin: Mexico.	Cultivated.
	Seed.			
PI 515547	donor id: Veracruz	381.	origin: Mexico.	Cultivated.
	Seed.			
PI 515548	donor id: Veracruz	575.	origin: Mexico.	Cultivated.
	Seed.			
PI 515549	donor id: Veracruz	582.	origin: Mexico.	Cultivated.
	Seed.			

PI 515135 to 515579-continued

PI 515550	donor id: Veracruz 584.	origin: Mexico.	Cultivated. Seed.
PI 515551	donor id: Yucatan 5.	origin: Mexico.	Cultivated. Seed.
PI 515552	donor id: Yucatan 28.	origin: Mexico.	Cultivated. Seed.
PI 515553	donor id: Yucatan 31.	origin: Mexico.	Cultivated. Seed.
PI 515554	donor id: Yucatan 41.	origin: Mexico.	Cultivated. Seed.
PI 515555	donor id: Yucatan 62.	origin: Mexico.	Cultivated. Seed.
PI 515556	donor id: Yucatan 78.	origin: Mexico.	Cultivated. Seed.
PI 515557	donor id: Yucatan 82.	origin: Mexico.	Cultivated. Seed.
PI 515558	donor id: Yucatan 102.	origin: Mexico.	Cultivated. Seed.
PI 515559	donor id: Yucatan 109.	origin: Mexico.	Cultivated. Seed.
PI 515560	donor id: Yucatan 110.	origin: Mexico.	Cultivated. Seed.
PI 515561	donor id: Yucatan 140.	origin: Mexico.	Cultivated. Seed.
PI 515562	donor id: Yucatan 192.	origin: Mexico.	Cultivated. Seed.
PI 515563	donor id: Yucatan 242.	origin: Mexico.	Cultivated. Seed.
PI 515564	donor id: Zacatecas 26.	origin: Mexico.	Cultivated. Seed.
PI 515565	donor id: Zacatecas 27.	origin: Mexico.	Cultivated. Seed.
PI 515566	donor id: Zacatecas 38.	origin: Mexico.	Cultivated. Seed.



PI 515135 to 515579-continued

PI 515567 donor id: Zacatecas 52. origin: Mexico. Cultivated.  
Seed.

PI 515568 donor id: Zacatecas 72. origin: Mexico. Cultivated.  
Seed.

PI 515569 donor id: Zacatecas 87. origin: Mexico. Cultivated.  
Seed.

PI 515570 donor id: Zacatecas 99. origin: Mexico. Cultivated.  
Seed.

PI 515571 donor id: Zacatecas 131. origin: Mexico. Cultivated.  
Seed.

PI 515572 donor id: Zacatecas 132. origin: Mexico. Cultivated.  
Seed.

PI 515573 donor id: Zacatecas 149. origin: Mexico. Cultivated.  
Seed.

PI 515574 donor id: Zacatecas 150. origin: Mexico. Cultivated.  
Seed.

PI 515575 donor id: Zacatecas 155. origin: Mexico. Cultivated.  
Seed.

PI 515576 donor id: Zacatecas 156. origin: Mexico. Cultivated.  
Seed.

PI 515577 donor id: Zacatecas 161. origin: Mexico. Cultivated.  
Seed.

PI 515578 donor id: Zacatecas 198. origin: Mexico. Cultivated.  
Seed.

PI 515579 donor id: Zacatecas 207. origin: Mexico. Cultivated.  
Seed.

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

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

PI 515580 donor id: Sg. 3442. origin: Togo. local name: Song.  
collected: 1977. collector id: TO 03. other id: NSL  
169270. locality: Nanergou village. remarks: Growing  
season 80-90 days. Race Durra x Guinea. Cultivated.  
Seed.

PI 515580 to 515909-continued

- PI 515581 donor id: Sg. 3443. origin: Togo. local name: Demoni. collected: 1977. collector id: TO 04. other id: NSL 167839. locality: Nanergou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515582 donor id: Sg. 3444. origin: Togo. local name: Delongo. collected: 1977. collector id: TO 05. other id: NSL 167840. locality: Nanergou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515583 donor id: Sg. 3445. origin: Togo. local name: Tchari. collected: 1977. collector id: TO 06. other id: NSL 167841. locality: Nanergou village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515584 donor id: Sg. 3446. origin: Togo. local name: Song. collected: 1977. collector id: TO 09. other id: NSL 169271. locality: Dontougou village. remarks: Growing season 80-90 days. Race Durra Guinea. Cultivated. Seed.
- PI 515585 donor id: Sg. 3447. origin: Togo. local name: Demoni. collected: 1977. collector id: TO 10. other id: NSL 167842. locality: Dontougou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515586 donor id: Sg. 3448. origin: Togo. local name: Belogo. collected: 1977. collector id: TO 11. other id: NSL 167843. locality: Dontougou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515587 donor id: Sg. 3449. origin: Togo. local name: Tchari. collected: 1977. collector id: TO 12. other id: NSL 167844. locality: Dontougou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515588 donor id: Sg. 3450. origin: Togo. local name: Belogo. collected: 1977. collector id: TO 17. other id: NSL 167845. locality: Timbou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515589 donor id: Sg. 3451. origin: Togo. local name: Demoni. collected: 1977. collector id: TO 18. other id: NSL 167846. locality: Timbou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515590 donor id: Sg. 3452. origin: Togo. local name: Song. collected: 1977. collector id: TO 19. other id: NSL 169272. locality: Timbou village. remarks: Growing season 80-90 days. Race Durra Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515591 donor id: Sg. 3453. origin: Togo. local name: Belogo. collected: 1977. collector id: TO 23. other id: NSL 167847. locality: San Sante village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515592 donor id: Sg. 3454. origin: Togo. local name: Karaga. collected: 1977. collector id: TO 24. other id: NSL 169273. locality: San Sante village. remarks: Growing season 90 days. Race Durra Guinea. Cultivated. Seed.
- PI 515593 donor id: Sg. 3455. origin: Togo. local name: Ban Kanga. collected: 1977. collector id: TO 25. other id: NSL 167848. locality: San Sante village. remarks: Race Guinea. Cultivated. Seed.
- PI 515594 donor id: Sg. 3456. origin: Togo. local name: Maga. collected: 1977. collector id: TO 26. other id: NSL 167393. locality: San Sante village. remarks: Growing season 90 days. Race Durra. Cultivated. Seed.
- PI 515595 donor id: Sg. 3457. origin: Togo. local name: Maga. collected: 1977. collector id: TO 27. other id: NSL 167394. locality: San Sante village. remarks: Growing season 90 days. Race Durra. Cultivated. Seed.
- PI 515596 donor id: Sg. 3458. origin: Togo. local name: Karaga. collected: 1977. collector id: TO 31. other id: NSL 169274. locality: Biankouri village. remarks: Growing season 90 days. Race Durra Guinea. Cultivated. Seed.
- PI 515597 donor id: Sg. 3459. origin: Togo. local name: Lenguefia. collected: 1977. collector id: TO 32. other id: NSL 167395. locality: Biankouri village. remarks: Growing season 180 days. Race Durra. Cultivated. Seed.
- PI 515598 donor id: Sg. 3460. origin: Togo. local name: Belogo. collected: 1977. collector id: TO 33. other id: NSL 167849. locality: Biankouri village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515599 donor id: Sg. 3461. origin: Togo. local name: Demoni. collected: 1977. collector id: TO 34. other id: NSL 167850. locality: Biankouri village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515600 donor id: Sg. 3462. origin: Togo. local name: Belogo. collected: 1977. collector id: TO 37. other id: NSL 167851. locality: Tami village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515601 donor id: Sg. 3463. origin: Togo. local name: Demoni.  
collected: 1977. collector id: TO 38. other id: NSL  
167852. locality: Tami village. remarks: Growing season  
180 days. Race Guinea. Cultivated. Seed.
- PI 515602 donor id: Sg. 3464. origin: Togo. local name: Didjack.  
collected: 1977. collector id: TO 39. other id: NSL  
167853. locality: Tami village. remarks: Growing season  
120 days. Race Guinea. Cultivated. Seed.
- PI 515603 donor id: Sg. 3465. origin: Togo. local name: Makou.  
collected: 1977. collector id: TO 42. other id: NSL  
167854. locality: Warkonbo village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515604 donor id: Sg. 3466. origin: Togo. local name: Belogo.  
collected: 1977. collector id: TO 43. other id: NSL  
167855. locality: Warkonbo village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515605 donor id: Sg. 3467. origin: Togo. local name:  
Karapeilk. collected: 1977. collector id: TO 44. other  
id: NSL 167856. locality: Warkonbo village. remarks:  
Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515606 donor id: Sg. 3468. origin: Togo. local name: Kaziack.  
collected: 1977. collector id: TO 47. other id: NSL  
167857. locality: Warke village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515607 donor id: Sg. 3469. origin: Togo. local name: Karokou.  
collected: 1977. collector id: TO 48. other id: NSL  
167858. locality: Warke village. remarks: Growing  
season 120 days. Race Guinea. Cultivated. Seed.
- PI 515608 donor id: Sg. 3470. origin: Togo. local name: Demoni.  
collected: 1977. collector id: TO 51. other id: NSL  
167859. locality: Dore village. remarks: Growing season  
180 days. Race Guinea. Cultivated. Seed.
- PI 515609 donor id: Sg. 3471. origin: Togo. local name: Tamayia.  
collected: 1977. collector id: TO 52. other id: NSL  
167860. locality: Dore village. remarks: Growing season  
120-150 days. Race Guinea. Cultivated. Seed.
- PI 515610 donor id: Sg. 3472. origin: Togo. local name: Belogo.  
collected: 1977. collector id: TO 53. other id: NSL  
167861. locality: Dore village. remarks: Growing season  
180 days. Race Guinea. Cultivated. Seed.

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 515621 donor id: Sg. 3483. origin: Togo. local name: Song.  
collected: 1977. collector id: TO 68. other id: NSL  
169276. locality: Logpanou village. remarks: Growing  
season 90 days. Race Durra Guinea. Cultivated. Seed.
- PI 515622 donor id: Sg. 3484. origin: Togo. local name:  
Linkpatou. collected: 1977. collector id: TO 69. other  
id: NSL 167871. locality: Logpanou village. remarks:  
Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515623 donor id: Sg. 3485. origin: Togo. local name: Demoni.  
collected: 1977. collector id: TO 72. other id: NSL  
167872. locality: Yembour village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515624 donor id: Sg. 3486. origin: Togo. local name: Dimouri.  
collected: 1977. collector id: TO 73. other id: NSL  
167873. locality: Yembour village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515625 donor id: Sg. 3487. origin: Togo. local name: Ditora.  
collected: 1977. collector id: TO 74. other id: NSL  
169196. locality: Yembour village. remarks: Growing  
season 180 days. Race Durra x Caudatum. Cultivated.  
Seed.
- PI 515626 donor id: Sg. 3488. origin: Togo. local name: Kalanfei.  
collected: 1977. collector id: TO 76. other id: NSL  
167874. locality: Yembour village. remarks: Growing  
season 150 days. Race Guinea. Cultivated. Seed.
- PI 515627 donor id: Sg. 3489. origin: Togo. local name:  
Linkpatou. collected: 1977. collector id: TO 77. other  
id: NSL 167875. locality: Yembour village. remarks:  
Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515628 donor id: Sg. 3490. origin: Togo. local name:  
Kambilikou. collected: 1977. collector id: TO 78.  
other id: NSL 167876. locality: Yembour village.  
remarks: Growing season 90 days. Race Guinea.  
Cultivated. Seed.
- PI 515629 donor id: Sg. 3491. origin: Togo. local name: Song.  
collected: 1977. collector id: TO 81. other id: NSL  
169277. locality: Niourikpourma village. remarks:  
Growing season 90 days. Race Durra Guinea. Cultivated.  
Seed.

PI 515580 to 515909-continued

- PI 515630 donor id: Sg. 3492. origin: Togo. local name: Bankaranga. collected: 1977. collector id: TO 82. other id: NSL 167877. locality: Niourikpourma village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515631 donor id: Sg. 3493. origin: Togo. local name: Demoni. collected: 1977. collector id: TO 83. other id: NSL 167878. locality: Niourikpourma village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515632 donor id: Sg. 3495. origin: Togo. local name: Oudemnon. collected: 1977. collector id: TO 87. other id: NSL 167879. locality: Sanpatoute village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515633 donor id: Sg. 3496. origin: Togo. local name: Tchinelore. collected: 1977. collector id: TO 88. other id: NSL 167880. locality: Sanpatoute village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515634 donor id: Sg. 3497. origin: Togo. local name: Tchiari. collected: 1977. collector id: TO 89. other id: NSL 167881. locality: Sanpatoute village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515635 donor id: Sg. 3498. origin: Togo. local name: Oudemnon. collected: 1977. collector id: TO 92. other id: NSL 167882. locality: Borgou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515636 donor id: Sg. 3499. origin: Togo. local name: Ngologoa. collected: 1977. collector id: TO 93. other id: NSL 167883. locality: Borgou village. remarks: Growing season 90 days. Race Guinea. Cultivated. Seed.
- PI 515637 donor id: Sg. 3500. origin: Togo. local name: Kombong. collected: 1977. collector id: TO 94. other id: NSL 169197. locality: Borgou village. remarks: Growing season 90 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515638 donor id: Sg. 3501. origin: Togo. local name: Aparpkou. collected: 1977. collector id: TO 95. other id: NSL 167884. locality: Borgou village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515639 donor id: Sg. 3502. origin: Togo. local name: Tchinelore. collected: 1977. collector id: TO 96. other id: NSL 167885. locality: Borgou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515640 donor id: Sg. 3503. origin: Togo. local name: Nagniougon. collected: 1977. collector id: TO 97. other id: NSL 167886. locality: Borgou village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515641 donor id: Sg. 3404. origin: Togo. local name: Tchiari. collected: 1977. collector id: TO 98. other id: NSL 167887. locality: Borgou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515642 donor id: Sg. 3506. origin: Togo. local name: Demoni. collected: 1977. collector id: TO 102. other id: NSL 167888. locality: Koundjoure village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515643 donor id: Sg. 3507. origin: Togo. local name: Tchinelore. collected: 1977. collector id: TO 103. other id: NSL 167889. locality: Koundjoure village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515644 donor id: Sg. 3508. origin: Togo. local name: Tchiari. collected: 1977. collector id: TO 107. other id: NSL 167890. locality: Ponio village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515645 donor id: Sg. 3509. origin: Togo. local name: Demoni. collected: 1977. collector id: TO 108. other id: NSL 167891. locality: Ponio village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515646 donor id: Sg. 3510. origin: Togo. local name: Tchinelore. collected: 1977. collector id: TO 109. other id: NSL 167892. locality: Ponio village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515647 donor id: Sg. 3511. origin: Togo. local name: Kpalokou Pieno. collected: 1977. collector id: TO 116. other id: NSL 167893. locality: Sawaga village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515648 donor id: Sg. 3512. origin: Togo. local name: Kpalokou Monon. collected: 1977. collector id: TO 117. other id: NSL 167894. locality: Sawaga village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515649 donor id: Sg. 3514. origin: Togo. local name: Kombong Pieno. collected: 1977. collector id: TO 119. other id: NSL 169198. locality: Sawaga village. remarks: Growing season 90 days. Race Durra x Caudatum. Cultivated. Seed.



PI 515580 to 515909-continued

- PI 515650 donor id: Sg. 3515. origin: Togo. local name: Kombong Monon. collected: 1977. collector id: TO 120. other id: NSL 169199. locality: Sawaga village. remarks: Growing season 90 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515651 donor id: Sg. 3516. origin: Togo. collected: 1977. collector id: TO 121. other id: NSL 169303. locality: Sawaga village. remarks: Growing season 90 days. Cultivated. Seed.
- PI 515652 donor id: Sg. 3517. origin: Togo. local name: Idemone. collected: 1977. collector id: TO 124. other id: NSL 167895. locality: Korbongou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515653 donor id: Sg. 3518. origin: Togo. local name: Tchinnore. collected: 1977. collector id: TO 125. other id: NSL 167896. locality: Korbongou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515654 donor id: Sg. 3519. origin: Togo. local name: Idemone. collected: 1977. collector id: TO 128. other id: NSL 167897. locality: Nomoundjoga village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515655 donor id: Sg. 3520. origin: Togo. local name: Tchinnore. collected: 1977. collector id: TO 129. other id: NSL 167898. locality: Namoundjoga village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515656 donor id: Sg. 3521. origin: Togo. local name: Song. collected: 1977. collector id: TO 130. other id: NSL 169278. locality: Namoundjoga village. remarks: Growing season 90-120 days. Race Durra Guinea. Cultivated. Seed.
- PI 515657 donor id: Sg. 3522. origin: Togo. local name: Demoni. collected: 1977. collector id: TO 134. other id: NSL 167899. locality: Pana village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515658 donor id: Sg. 3523. origin: Togo. local name: Tchinnore. collected: 1977. collector id: TO 135. other id: NSL 167900. locality: Pana village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515659 donor id: Sg. 3524. origin: Togo. local name: Tchati. collected: 1977. collector id: TO 136. other id: NSL 167901. locality: Pana village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515660 donor id: Sg. 3525. origin: Togo. local name: Tcharig. collected: 1977. collector id: TO 137. other id: NSL 167902. locality: Pana village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515661 donor id: Sg. 3526. origin: Togo. local name: Gnarkpartoukou. collected: 1977. collector id: TO 138. other id: NSL 167903. locality: Pana village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515662 donor id: Sg. 3527. origin: Togo. local name: Najanemon. collected: 1977. collector id: TO 138. other id: NSL 167904. locality: Pana village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515663 donor id: Sg. 3528. origin: Togo. local name: Dissongo. collected: 1977. collector id: TO 140. other id: NSL 167396. locality: Pana village. remarks: Growing season 150-180 days. Race Durra. Cultivated. Seed.
- PI 515664 donor id: Sg. 3529. origin: Togo. local name: Goalogouaga. collected: 1977. collector id: TO 141. other id: NSL 167905. locality: Pana village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515665 donor id: Sg. 3530. origin: Togo. local name: Aparakou. collected: 1977. collector id: TO 144. other id: NSL 167906. locality: Tchanaga village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515666 donor id: Sg. 3531. origin: Togo. local name: Tchati. collected: 1977. collector id: TO 145. other id: NSL 167907. locality: Tchanaga village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515667 donor id: Sg. 3532. origin: Togo. local name: Yomdja. collected: 1977. collector id: TO 146. other id: NSL 167908. locality: Tchanaga village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515668 donor id: Sg. 3533. origin: Togo. local name: Tcharaka. collected: 1977. collector id: TO 147. other id: NSL 167909. locality: Tchanaga village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515669 donor id: Sg. 3535. origin: Togo. local name: Yanamba. collected: 1977. collector id: TO 150. other id: NSL 167911. locality: Nadoti village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515670 donor id: Sg. 3536. origin: Togo. local name: Idemone. collected: 1977. collector id: TO 151. other id: NSL 167910. locality: Galangachi village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515671 donor id: Sg. 3537. origin: Togo. local name: Tasoyombou. collected: 1977. collector id: TO 152. other id: NSL 167912. locality: Nadoti village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515672 donor id: Sg. 3538. origin: Togo. local name: Nadouni. collected: 1977. collector id: TO 154. other id: NSL 167913. locality: Nadoti village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515673 donor id: Sg. 3539. origin: Togo. local name: Leman. collected: 1977. collector id: TO 155. other id: NSL 167914. locality: Nadoti village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515674 donor id: Sg. 3540. origin: Togo. local name: Aparakou. collected: 1977. collector id: TO 156. other id: NSL 167915. locality: Nadoti village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515675 donor id: Sg. 3541. origin: Togo. local name: Techekengani. collected: 1977. collector id: TO 157. other id: NSL 167916. locality: Nadoti village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515676 donor id: Sg. 3542. origin: Togo. local name: Yoandji. collected: 1977. collector id: TO 162. other id: NSL 167917. locality: Koumongou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515677 donor id: Sg. 3543. origin: Togo. local name: Nganifofoe. collected: 1977. collector id: TO 163. other id: NSL 167918. locality: Koumongou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515678 donor id: Sg. 3544. origin: Togo. local name: Banambo. collected: 1977. collector id: TO 164. other id: NSL 167919. locality: Koumongou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515679 donor id: Sg. 3545. origin: Togo. local name: Edjibo. collected: 1977. collector id: TO 165. other id: NSL 167920. locality: Koumongou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515680 donor id: Sg. 3547. origin: Togo. local name: Démoni. collected: 1977. collector id: TO 170. other id: NSL 167921. locality: Loko village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515681 donor id: Sg. 3548. origin: Togo. local name: Tcharlk. collected: 1977. collector id: TO 171. other id: NSL 167922. locality: Loko village. remarks: Growing season 90 days. Race Guinea. Cultivated. Seed.
- PI 515682 donor id: Sg. 3549. origin: Togo. local name: Nakpatoukou. collected: 1977. collector id: TO 172. other id: NSL 167923. locality: Loko village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515683 donor id: Sg. 3550. origin: Togo. local name: Gnantork. collected: 1977. collector id: TO 173. other id: NSL 167397. locality: Loko village. remarks: Growing season 90-120 days. Race Durra. Cultivated. Seed.
- PI 515684 donor id: Sg. 3552. origin: Togo. local name: Tchikpambeleke. collected: 1977. collector id: TO 177. other id: NSL 167924. locality: Nagbeni village. remarks: Race Guinea. Cultivated. Seed.
- PI 515685 donor id: Sg. 3553. origin: Togo. local name: Kamognoum. collected: 1977. collector id: TO 178. other id: NSL 167925. locality: Nagbeni village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515686 donor id: Sg. 3554. origin: Togo. local name: Yomdja. collected: 1977. collector id: TO 179. other id: NSL 167926. locality: Nagbeni village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515687 donor id: Sg. 3555. origin: Togo. local name: Aparakou. collected: 1977. collector id: TO 182. other id: NSL 167927. locality: Sagbiabou village. remarks: Growing season 90-120 days. Race Guinea. Cultivated. Seed.
- PI 515688 donor id: Sg. 3556. origin: Togo. local name: Nagbeni. collected: 1977. collector id: TO 183. other id: NSL 168939. locality: Sagbiabou village. remarks: Growing season 180 days. Race Guinea x Caudatum. Cultivated. Seed.
- PI 515689 donor id: Sg. 3557. origin: Togo. local name: Tasoyoumbou. collected: 1977. collector id: TO 184. other id: NSL 168851. locality: Sagbiabou village. remarks: Growing season 120-150 days. Race Caudatum. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515690 donor id: Sg. 3558. origin: Togo. local name: Nganikokore. collected: 1977. collector id: TO 185. other id: NSL 168852. locality: Sagbiabou village. remarks: Growing season 180 days. Race Caudatum. Cultivated. Seed.
- PI 515691 donor id: Sg. 3559. origin: Togo. local name: Tcharaka. collected: 1977. collector id: TO 186. other id: NSL 168853. locality: Sagbiabou village. remarks: Growing season 180 days. Race Caudatum. Cultivated. Seed.
- PI 515692 donor id: Sg. 3560. origin: Togo. local name: Aparakou. collected: 1977. collector id: TO 189. other id: NSL 167928. locality: Dontondi village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515693 donor id: Sg. 3561. origin: Togo. local name: Moumounga. collected: 1977. collector id: TO 190. other id: NSL 168854. locality: Dontondi village. remarks: Growing season 150-180 days. Race Caudatum. Cultivated. Seed.
- PI 515694 donor id: Sg. 3563. origin: Togo. local name: Otchalidiapie. collected: 1977. collector id: TO 192. other id: NSL 168855. locality: Dontondi village. remarks: Growing season 150-180 days. Race Caudatum. Cultivated. Seed.
- PI 515695 donor id: Sg. 3564. origin: Togo. local name: Ata. collected: 1977. collector id: TO 193. other id: NSL 168856. locality: Dontondi village. remarks: Growing season 120 days. Race Caudatum. Cultivated. Seed.
- PI 515696 donor id: Sg. 3565. origin: Togo. local name: Gnouboum. collected: 1977. collector id: TO 194. other id: NSL 168857. locality: Dontondi village. remarks: Growing season 180 days. Race Caudatum. Cultivated. Seed.
- PI 515697 donor id: Sg. 3566. origin: Togo. local name: Aparakou. collected: 1977. collector id: TO 195. other id: NSL 167929. locality: Mogou village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515698 donor id: Sg. 3567. origin: Togo. local name: Tchalidja. collected: 1977. collector id: TO 196. other id: NSL 167930. locality: Mogou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515699 donor id: Sg. 3568. origin: Togo. local name: Gbalango. collected: 1977. collector id: TO 197. other id: NSL 167931. locality: Mogou village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515700 donor id: Sg. 3569. origin: Togo. local name: Moumounga. collected: 1977. collector id: TO 198. other id: NSL 167932. locality: Mogou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515701 donor id: Sg. 3570. origin: Togo. local name: Yomdja. collected: 1977. collector id: TO 199. other id: NSL 167933. locality: Mogou village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515702 donor id: Sg. 3571. origin: Togo. local name: Itoure. collected: 1977. collector id: TO 201. other id: NSL 167934. locality: Mogou village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515703 donor id: Sg. 3572. origin: Togo. local name: Tcharaka. collected: 1977. collector id: TO 203. other id: NSL 167935. locality: Mogou village. remarks: Growing season 150-210 days. Race Guinea. Cultivated. Seed.
- PI 515704 donor id: Sg. 3573. origin: Togo. local name: Tchati. collected: 1977. collector id: TO 204. other id: NSL 167936. locality: Mogou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515705 donor id: Sg. 3574. origin: Togo. local name: Yomdja. collected: 1977. collector id: TO 205. other id: NSL 167937. locality: Gando village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515706 donor id: Sg. 3575. origin: Togo. local name: Otantouni. collected: 1977. collector id: TO 206. other id: NSL 167938. locality: Gando village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515707 donor id: Sg. 3576. origin: Togo. local name: Edjimon. collected: 1977. collector id: TO 207. other id: NSL 167939. locality: Gando village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515708 donor id: Sg. 3577. origin: Togo. local name: Nambingani. collected: 1977. collector id: TO 214. other id: NSL 167940. locality: Nali village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515709 donor id: Sg. 3578. origin: Togo. local name: Tchekangani. collected: 1977. collector id: TO 215. other id: NSL 167941. locality: Nali village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515710 donor id: Sg. 3579. origin: Togo. local name: Namango. collected: 1977. collector id: TO 216. other id: NSL 167942. locality: Nali village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515711 donor id: Sg. 3580. origin: Togo. local name: Nganifofoue. collected: 1977. collector id: TO 217. other id: NSL 167943. locality: Nali village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515712 donor id: Sg. 3581. origin: Togo. local name: Aparakou. collected: 1977. collector id: TO 218. other id: NSL 167944. locality: Nali village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515713 donor id: Sg. 3582. origin: Togo. local name: Djakpar. collected: 1977. collector id: TO 223. other id: NSL 167945. locality: Tchakpamba village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515714 donor id: Sg. 3583. origin: Togo. local name: Oufoumboe. collected: 1977. collector id: TO 224. other id: NSL 167946. locality: Tchakpamba village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515715 donor id: Sg. 3584. origin: Togo. local name: Anakou. collected: 1977. collector id: TO 225. other id: NSL 167947. locality: Tchakpamba village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515716 donor id: Sg. 3585. origin: Togo. local name: Tchati. collected: 1977. collector id: TO 226. other id: NSL 167948. locality: Tchakpamba village. remarks: Growing season 90-120 days. Race Guinea. Cultivated. Seed.
- PI 515717 donor id: Sg. 3586. origin: Togo. local name: Tangore. collected: 1977. collector id: TO 227. other id: NSL 167949. locality: Tchakpamba village. remarks: Growing season 90 days. Race Guinea. Cultivated. Seed.
- PI 515718 donor id: Sg. 3587. origin: Togo. local name: Yapar. collected: 1977. collector id: TO 228. other id: NSL 167950. locality: Tchakpamba village. remarks: Growing season 120 days. race Guinea. Cultivated. Seed.
- PI 515719 donor id: Sg. 3589. origin: Togo. local name: Makotre. collected: 1977. collector id: TO 234. other id: NSL 167951. locality: Ossakee village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515720 donor id: Sg. 3590. origin: Togo. local name: Tcherenga. collected: 1977. collector id: TO 235. other id: NSL 167952. locality: Ossakee village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515721 donor id: Sg. 3592. origin: Togo. local name: Amognon. collected: 1977. collector id: TO 238. other id: NSL 169200. locality: Ossakee village. remarks: Growing season 180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515722 donor id: Sg. 3593. origin: Togo. local name: Kountouaga. collected: 1977. collector id: TO 241. other id: NSL 167954. locality: Soute village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515723 donor id: Sg. 3594. origin: Togo. local name: Tchakpa. collected: 1977. collector id: TO 242. other id: NSL 167955. locality: Soute village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515724 donor id: Sg. 3595. origin: Togo. local name: Tcherenga. collected: 1977. collector id: TO 243. other id: NSL 167956. locality: Soute village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515725 donor id: Sg. 3596. origin: Togo. local name: Amougnon. collected: 1977. collector id: TO 244. other id: NSL 169201. locality: Soute village. remarks: Growing season 180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515726 donor id: Sg. 3599. origin: Togo. local name: Tiyo peti. collected: 1977. collector id: TO 254. other id: NSL 167957. locality: Wartemon village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515727 donor id: Sg. 3600. origin: Togo. local name: Tiyo peti. collected: 1977. collector id: TO 255. other id: NSL 167958. locality: Wartemon village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515728 donor id: Sg. 3601. origin: Togo. local name: Esseua. collected: 1977. collector id: TO 256. other id: NSL 169202. locality: Wartemon village. remarks: Growing season 180 days. Race Durra x Caudatum. Cultivated. Seed.



PI 515580 to 515909-continued

- PI 515729 donor id: Sg. 3602. origin: Togo. local name: Tiboati.  
collected: 1977. collector id: TO 257. other id: NSL  
167959. locality: Wartemon village. remarks: Growing  
season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515730 donor id: Sg. 3603. origin: Togo. local name: Isayeri.  
collected: 1977. collector id: TO 259. other id: NSL  
167960. locality: Wartemon village. remarks: Growing  
season 150 days. Race Guinea. Cultivated. Seed.
- PI 515731 donor id: Sg. 3604. origin: Togo. local name: Sapago.  
collected: 1977. collector id: TO 262. other id: NSL  
167961. locality: Baga village. remarks: Growing season  
120-150 days. Race Guinea. Cultivated. Seed.
- PI 515732 donor id: Sg. 3605. origin: Togo. local name: Gatode.  
collected: 1977. collector id: TO 263. other id: NSL  
169203. locality: Baga village. remarks: Growing season  
180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515733 donor id: Sg. 3606. origin: Togo. local name: Diante.  
collected: 1977. collector id: TO 264. other id: NSL  
167962. locality: Baga village. remarks: Growing season  
180 days. Race Guinea. Cultivated. Seed.
- PI 515734 donor id: Sg. 3607. origin: Togo. local name: Mila.  
collected: 1977. collector id: TO 269. other id: NSL  
167963. locality: Massedena village. remarks: Growing  
season 150 days. Race Guinea. Cultivated. Seed.
- PI 515735 donor id: Sg. 3608. origin: Togo. local name: Amenian.  
collected: 1977. collector id: TO 270. other id: NSL  
169204. locality: Massedena village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515736 donor id: Sg. 3610. origin: Togo. local name: Djomonma.  
collected: 1977. collector id: TO 275. other id: NSL  
167964. locality: Siou village. remarks: Growing season  
180 days. Race Guinea. Cultivated. Seed.
- PI 515737 donor id: Sg. 3611. origin: Togo. local name: Ideman.  
collected: 1977. collector id: TO 278. other id: NSL  
167965. locality: Nandoundja village. remarks: Growing  
season 150 days. Race Guinea. Cultivated. Seed.
- PI 515738 donor id: Sg. 3612. origin: Togo. local name: Idepine.  
collected: 1977. collector id: TO 279. other id: NSL  
167966. locality: Nandoundja village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515739 donor id: Sg. 3613. origin: Togo. local name: Tchangbekakala. collected: 1977. collector id: TO 280. other id: NSL 169250. locality: Nandoundja village. remarks: Growing season 120-150 days. Race Bicolor. Cultivated. Seed.
- PI 515740 donor id: Sg. 3614. origin: Togo. local name: Mankontri. collected: 1977. collector id: TO 287. other id: NSL 167967. locality: Atalote village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515741 donor id: Sg. 3615. origin: Togo. local name: Tcherenka. collected: 1977. collector id: TO 288. other id: NSL 167968. locality: Atalote village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515742 donor id: Sg. 3616. origin: Togo. local name: Amougnon. collected: 1977. collector id: TO 289. other id: NSL 169205. locality: Atalote village. remarks: Growing season 180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515743 donor id: Sg. 3618. origin: Togo. local name: Mila. collected: 1977. collector id: TO 298. other id: NSL 167969. locality: Kadjala village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515744 donor id: Sg. 3620. origin: Togo. local name: Tamone. collected: 1977. collector id: TO 300. other id: NSL 167970. locality: Kadjala village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515745 donor id: Sg. 3621. origin: Togo. local name: Amougnon. collected: 1977. collector id: TO 301. other id: NSL 169206. locality: Kadjala village. remarks: Growing season 180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515746 donor id: Sg. 3623. origin: Togo. local name: Katidjala. collected: 1977. collector id: TO 311. other id: NSL 167971. locality: Agbande village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515747 donor id: Sg. 3624. origin: Togo. local name: Sesse. collected: 1977. collector id: TO 312. other id: NSL 167972. locality: Agbande village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515748 donor id: Sg. 3625. origin: Togo. local name: Sesse.  
collected: 1977. collector id: TO 317. other id: NSL  
167973. locality: Landa Penzende village. remarks:  
Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515749 donor id: Sg. 3626. origin: Togo. local name: Mao.  
collected: 1977. collector id: TO 318. other id: NSL  
167974. locality: Landa Penzende village. remarks:  
Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515750 donor id: Sg. 3627. origin: Togo. local name: Katapale.  
collected: 1977. collector id: TO 319. other id: NSL  
167975. locality: Landa Penzende village. remarks:  
Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515751 donor id: Sg. 3628. origin: Togo. local name:  
Kazinzinga. collected: 1977. collector id: TO 320.  
other id: NSL 169207. locality: Landa Penzende village.  
remarks: Growing season 180 days. Race Durra x Caudatum.  
Cultivated. Seed.
- PI 515752 donor id: Sg. 3629. origin: Togo. local name: Mboni.  
collected: 1977. collector id: TO 321. other id: NSL  
168940. locality: Landa Penzende village. remarks:  
Growing season 180 days. Race Guinea x Caudatum.  
Cultivated. Seed.
- PI 515753 donor id: Sg. 3630. origin: Togo. local name:  
Tchetcheyo blanc. collected: 1977. collector id: TO  
322. other id: NSL 167976. locality: Landa Penzende  
village. remarks: Growing season 180 days. Race Guinea.  
Cultivated. Seed.
- PI 515754 donor id: Sg. 3631. origin: Togo. local name:  
Tchetcheyo. collected: 1977. collector id: TO 322 bis.  
other id: NSL 167977. locality: Landa Penzende village.  
remarks: Growing season 180 days. Race Guinea.  
Cultivated. Seed.
- PI 515755 donor id: Sg. 3632. origin: Togo. local name: Mao.  
collected: 1977. collector id: TO 326. other id: NSL  
167978. locality: Lassa village. remarks: Growing  
season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515756 donor id: Sg. 3633. origin: Togo. local name: Mao.  
collected: 1977. collector id: TO 327. other id: NSL  
167979. locality: Lassa village. remarks: Growing  
season 150-180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515757 donor id: Sg. 3634. origin: Togo. local name: Katapale.  
collected: 1977. collector id: TO 328. other id: NSL  
167980. locality: Lassa village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515758 donor id: Sg. 3636. origin: Togo. local name: Tchakpao.  
collected: 1977. collector id: TO 330. other id: NSL  
167981. locality: Lassa village. remarks: Growing  
season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515759 donor id: Sg. 3637. origin: Togo. local name: Mellelou.  
collected: 1977. collector id: TO 332. other id: NSL  
167982. locality: Ketao village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515760 donor id: Sg. 3638. origin: Togo. local name:  
Kazinzinga. collected: 1977. collector id: TO 333.  
other id: NSL 167983. locality: Ketao village. remarks:  
Growing season 180 days. Race Durra x Caudatum.  
Cultivated. Seed.
- PI 515761 donor id: Sg. 3640. origin: Togo. local name: Mlazoma.  
collected: 1977. collector id: TO 335. other id: NSL  
167984. locality: Ketao village. remarks: Growing  
season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515762 donor id: Sg. 3641. origin: Togo. local name:  
Milzemire. collected: 1977. collector id: TO 338.  
other id: NSL 167985. locality: Grande village.  
remarks: Growing season 150 days. Race Guinea.  
Cultivated. Seed.
- PI 515763 donor id: Sg. 3642. origin: Togo. local name: Tchakpao.  
collected: 1977. collector id: TO 339. other id: NSL  
167986. locality: Grande village. remarks: Growing  
season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515764 donor id: Sg. 3643. origin: Togo. local name: Lidazire.  
collected: 1977. collector id: TO 340. other id: NSL  
167987. locality: Grande village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515765 donor id: Sg. 3644. origin: Togo. local name: Imboni.  
collected: 1977. collector id: TO 341. other id: NSL  
168941. locality: Grande village. remarks: Growing  
season 180 days. Race Guinea x Caudatum. Cultivated.  
Seed.
- PI 515766 donor id: Sg. 3645. origin: Togo. local name: Serou.  
collected: 1977. collector id: TO 342. other id: NSL  
167988. locality: Grande village. remarks: Growing  
season 180-210 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515767 donor id: Sg. 3646. origin: Togo. local name: Milwouloumrei. collected: 1977. collector id: TO 343. other id: NSL 167989. locality: Grande village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515768 donor id: Sg. 3647. origin: Togo. local name: Keregna. collected: 1977. collector id: TO 344. other id: NSL 169209. locality: Grande village. remarks: Growing season 150-180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515769 donor id: Sg. 3648. origin: Togo. local name: Melezende. collected: 1977. collector id: TO 345. other id: NSL 167990. locality: Tchambao village. remarks: Growing season 90 days. Race Guinea. Cultivated. Seed.
- PI 515770 donor id: Sg. 3649. origin: Togo. local name: Melezende. collected: 1977. collector id: TO 346. other id: NSL 167991. locality: Tchambao village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515771 donor id: Sg. 3650. origin: Togo. local name: Milwoulounde. collected: 1977. collector id: TO 347. other id: NSL 167992. locality: Tchambao village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515772 donor id: Sg. 3652. origin: Togo. local name: Lidaeza. collected: 1977. collector id: TO 349. other id: NSL 167993. locality: Tchambao village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515773 donor id: Sg. 3653. origin: Togo. local name: Idi. collected: 1977. collector id: TO 352. other id: NSL 167994. locality: Katchamba village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515774 donor id: Sg. 3654. origin: Togo. local name: Aparakou. collected: 1977. collector id: TO 353. other id: NSL 167995. locality: Katchamba village. remarks: Growing season 90-120 days. Race Guinea. Cultivated. Seed.
- PI 515775 donor id: Sg. 3655. origin: Togo. local name: Idenoukple. collected: 1977. collector id: TO 355. other id: NSL 167996. locality: Katchamba village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515776 donor id: Sg. 3656. origin: Togo. local name: Djakpere.  
collected: 1977. collector id: TO 358. other id: NSL  
167997. locality: Kidjaboun village. remarks: Growing  
season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515777 donor id: Sg. 3657. origin: Togo. local name: Mamang.  
collected: 1977. collector id: TO 359. other id: NSL  
167998. locality: Kidjaboun village. Cultivated. Seed.
- PI 515778 donor id: Sg. 3658. origin: Togo. local name: Djapora.  
collected: 1977. collector id: TO 360. other id: NSL  
167999. locality: Kidjaboun village. remarks: Growing  
season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515779 donor id: Sg. 3659. origin: Togo. local name:  
Nakatoumba. collected: 1977. collector id: TO 361.  
other id: NSL 168000. locality: Kidjaboun village.  
remarks: Growing season 90-120 days. Race Guinea.  
Cultivated. Seed.
- PI 515780 donor id: Sg. 3660. origin: Togo. local name: Ididje.  
collected: 1977. collector id: TO 364. other id: NSL  
168001. locality: Nampoach village. remarks: Growing  
season 90-120 days. Race Guinea. Cultivated. Seed.
- PI 515781 donor id: Sg. 3661. origin: Togo. local name: Idi.  
collected: 1977. collector id: TO 365. other id: NSL  
168002. locality: Nampoach village. remarks: Growing  
season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515782 donor id: Sg. 3662. origin: Togo. local name: Djakpel.  
collected: 1977. collector id: TO 365 bis. other id:  
NSL 168003. locality: Guerinkouka village. remarks:  
Growing season 120-150 days. Race Guinea. Cultivated.  
Seed.
- PI 515783 donor id: Sg. 3663. origin: Togo. local name: Idi.  
collected: 1977. collector id: TO 366. other id: NSL  
168004. locality: Guerinkouka village. remarks: Growing  
season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515784 donor id: Sg. 3664. origin: Togo. local name: Nidjire.  
collected: 1977. collector id: TO 368. other id: NSL  
168005. locality: Nanon village. remarks: Growing  
season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515785 donor id: Sg. 3665. origin: Togo. local name: Idji.  
collected: 1977. collector id: TO 369. other id: NSL  
168006. locality: Nanon village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515786 donor id: Sg. 3668. origin: Togo. local name: Mla.  
collected: 1977. collector id: TO 378. other id: NSL  
168007. locality: Lao village. remarks: Growing season  
150-180 days. Race Guinea. Cultivated. Seed.
- PI 515787 donor id: Sg. 3669. origin: Togo. local name: Tchakpao.  
collected: 1977. collector id: TO 379. other id: NSL  
168008. locality: Lao village. remarks: Growing season  
150 days. Race Guinea. Cultivated. Seed.
- PI 515788 donor id: Sg. 3670. origin: Togo. local name:  
Kazinzinga. collected: 1977. collector id: TO 380.  
other id: NSL 169210. locality: Lao village. remarks:  
Growing season 150-180 days. Race Durra x Caudatum.  
Cultivated. Seed.
- PI 515789 donor id: Sg. 3671. origin: Togo. local name: Moulene.  
collected: 1977. collector id: TO 381. other id: NSL  
168010. locality: Lao village. remarks: Growing season  
180 days. Race Guinea. Cultivated. Seed.
- PI 515790 donor id: Sg. 3673. origin: Togo. local name: Mbono.  
collected: 1977. collector id: TO 386. other id: NSL  
168942. locality: Awandjelo village. remarks: Growing  
season 150 days. Race Guinea x Caudatum. Cultivated.  
Seed.
- PI 515791 donor id: Sg. 3674. origin: Togo. local name: Lao.  
collected: 1977. collector id: TO 387. other id: NSL  
168011. locality: Awandjelo village. remarks: Growing  
season 150 days. Race Guinea. Cultivated. Seed.
- PI 515792 donor id: Sg. 3675. origin: Togo. local name:  
Mlakessema. collected: 1977. collector id: TO 388.  
other id: NSL 168012. locality: Awandjelo village.  
remarks: Growing season 150 days. Race Guinea.  
Cultivated. Seed.
- PI 515793 donor id: Sg. 3678. origin: Togo. local name:  
Kazinzinga. collected: 1977. collector id: TO 391.  
other id: NSL 169211. locality: Awandjelo village.  
remarks: Growing season 180 days. Race Durra x Caudatum.  
Cultivated. Seed.
- PI 515794 donor id: Sg. 3679. origin: Togo. local name:  
Mlakoukoulome. collected: 1977. collector id: TO 394.  
other id: NSL 168013. locality: Djande village.  
remarks: Growing season 180 days. Race Guinea.  
Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515795 donor id: Sg. 3680. origin: Togo. local name: Mlakesseme. collected: 1977. collector id: TO 395. other id: NSL 168014. locality: Djande village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515796 donor id: Sg. 3681. origin: Togo. local name: Tchakpao. collected: 1977. collector id: TO 396. other id: NSL 168015. locality: Djande village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515797 donor id: Sg. 3682. origin: Togo. local name: Kazinzinga. collected: 1977. collector id: TO 397. other id: NSL 169212. locality: Djande village. remarks: Growing season 150-180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515798 donor id: Sg. 3683. origin: Togo. local name: Moloma. collected: 1977. collector id: TO 398. other id: NSL 168016. locality: Djande village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515799 donor id: Sg. 3684. origin: Togo. local name: Moloma. collected: 1977. collector id: TO 399. other id: NSL 168943. locality: Djande village. remarks: Growing season 180 days. Race Guinea x Caudatum. Cultivated. Seed.
- PI 515800 donor id: Sg. 3685. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 400. other id: NSL 168017. locality: Djande village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515801 donor id: Sg. 3687. origin: Togo. local name: Mlakoukoulome. collected: 1977. collector id: TO 402. other id: NSL 168018. locality: Djande village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515802 donor id: Sg. 3688. origin: Togo. local name: Tchakpao. collected: 1977. collector id: TO 405. other id: NSL 168019. locality: Santeo village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515803 donor id: Sg. 3689. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 406. other id: NSL 168020. locality: Santeo village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.



PI 515580 to 515909-continued

- PI 515804 donor id: Sg. 3690. origin: Togo. local name: Kpadra. collected: 1977. collector id: TO 407. other id: NSL 168021. locality: Santeo village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515805 donor id: Sg. 3692. origin: Togo. local name: Kazinzinga. collected: 1977. collector id: TO 409. other id: NSL 169213. locality: Santeo village. remarks: Growing season 150-180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515806 donor id: Sg. 3693. origin: Togo. local name: Gmakou. collected: 1977. collector id: TO 413. other id: NSL 168022. locality: Kabou village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515807 donor id: Sg. 3695. origin: Togo. local name: Ideman. collected: 1977. collector id: TO 414. other id: NSL 168023. locality: Kabou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515808 donor id: Sg. 3696. origin: Togo. local name: Takanda. collected: 1977. collector id: TO 415. other id: NSL 169251. locality: Kabou village. remarks: Growing season 180 days. Race Bicolor. Cultivated. Seed.
- PI 515809 donor id: Sg. 3697. origin: Togo. local name: Idepine. collected: 1977. collector id: TO 416. other id: NSL 168024. locality: Kabou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515810 donor id: Sg. 3698. origin: Togo. local name: Idepine. collected: 1977. collector id: TO 418. other id: NSL 168025. locality: Bandjeli village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515811 donor id: Sg. 3699. origin: Togo. local name: Ideman. collected: 1977. collector id: TO 419. other id: NSL 168026. locality: Bandjeli village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515812 donor id: Sg. 3700. origin: Togo. local name: Kedekante. collected: 1977. collector id: TO 420. other id: NSL 169214. locality: Bandjeli village. remarks: Growing season 180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515813 donor id: Sg. 3701. origin: Togo. local name: Takanda. collected: 1977. collector id: TO 421. other id: NSL 169252. locality: Bandjeli village. remarks: Growing season 150 days. Race Bicolor. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515814 donor id: Sg. 3703. origin: Togo. local name: Djokpoe. collected: 1977. collector id: TO 425. other id: NSL 168027. locality: Petab village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515815 donor id: Sg. 3704. origin: Togo. local name: Idepine. collected: 1977. collector id: TO 429. other id: NSL 168028. locality: Imfalobou village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515816 donor id: Sg. 3705. origin: Togo. local name: Ideman. collected: 1977. collector id: TO 430. other id: NSL 168029. locality: Imfalobou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515817 donor id: Sg. 3706. origin: Togo. local name: Idjima. collected: 1977. collector id: TO 432. other id: NSL 168030. locality: Bidjabe village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515818 donor id: Sg. 3708. origin: Togo. local name: Idepine. collected: 1977. collector id: TO 436. other id: NSL 168031. locality: Dimouri village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515819 donor id: Sg. 3709. origin: Togo. local name: Ideman. collected: 1977. collector id: TO 437. other id: NSL 168032. locality: Dimouri village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515820 donor id: Sg. 3710. origin: Togo. local name: Ideman. collected: 1977. collector id: TO 438. other id: NSL 168033. locality: Bagan village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515821 donor id: Sg. 3711. origin: Togo. local name: Idepine. collected: 1977. collector id: TO 439. other id: NSL 168034. locality: Bagan village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515822 donor id: Sg. 3712. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 445. other id: NSL 168035. locality: Sagbadai village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515823 donor id: Sg. 3713. origin: Togo. local name: Mlakoukoulome. collected: 1977. collector id: TO 446. other id: NSL 168036. locality: Sagbadai village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515824 donor id: Sg. 3714. origin: Togo. local name: Ideman. collected: 1977. collector id: TO 448. other id: NSL 168037. locality: Nagbani village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515825 donor id: Sg. 3717. origin: Togo. local name: Ideman. collected: 1977. collector id: TO 452. other id: NSL 168038. locality: Kalanga village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515826 donor id: Sg. 3718. origin: Togo. local name: Idepine. collected: 1977. collector id: TO 453. other id: NSL 168039. locality: Kalanga village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515827 donor id: Sg. 3719. origin: Togo. local name: Keregna. collected: 1977. collector id: TO 454. other id: NSL 169215. locality: Kalanga village. remarks: Growing season 180 days. Race Durra Caudatum. Cultivated. Seed.
- PI 515828 donor id: Sg. 3720. origin: Togo. local name: Mbone. collected: 1977. collector id: TO 455. other id: NSL 168944. locality: Binakou village. remarks: Growing season 180 days. Race Guinea x Caudatum. Cultivated. Seed.
- PI 515829 donor id: Sg. 3721. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 456. other id: NSL 168040. locality: Binakou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515830 donor id: Sg. 3724. origin: Togo. local name: Idjiopepe. collected: 1977. collector id: TO 460. other id: NSL 168041. locality: Dancho village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515831 donor id: Sg. 3725. origin: Togo. local name: Idjiomaman. collected: 1977. collector id: TO 461. other id: NSL 168042. locality: Dancho village. remarks: Growing season 120-150 days. Race Guinea. Cultivated. Seed.
- PI 515832 donor id: Sg. 3726. origin: Togo. local name: Issongo Dopago. collected: 1977. collector id: TO 462. other id: NSL 168043. locality: Balanka village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515833 donor id: Sg. 3727. origin: Togo. local name: Issongo. collected: 1977. collector id: TO 463. other id: NSL 168044. locality: Balanka village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515834 donor id: Sg. 3728. origin: Togo. local name: Sakparo. collected: 1977. collector id: TO 464. other id: NSL 169216. locality: Goubi village. remarks: Growing season 180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515835 donor id: Sg. 3729. origin: Togo. local name: Bobakokpan. collected: 1977. collector id: TO 465. other id: NSL 168045. locality: Goubi village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515836 donor id: Sg. 3730. origin: Togo. local name: Bobadokpago. collected: 1977. collector id: TO 466. other id: NSL 168046. locality: Goubi village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515837 donor id: Sg. 3731. origin: Togo. local name: Keregna. collected: 1977. collector id: TO 467. other id: NSL 169217. locality: Bagou village. remarks: Growing season 150-180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515838 donor id: Sg. 3732. origin: Togo. local name: Oguidi. collected: 1977. collector id: TO 468. other id: NSL 168047. locality: Bagou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515839 donor id: Sg. 3733. origin: Togo. local name: Difema. collected: 1977. collector id: TO 469. other id: NSL 168048. locality: Bagou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515840 donor id: Sg. 3734. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 470. other id: NSL 168049. locality: Sessaro village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515841 donor id: Sg. 3736. origin: Togo. local name: Mlakoukoulome. collected: 1977. collector id: TO 472. other id: NSL 168050. locality: Kangba village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515842 donor id: Sg. 3737. origin: Togo. local name: Kazinzinga. collected: 1977. collector id: TO 473. other id: NSL 169218. locality: Kangba village. remarks: Growing season 150-180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515843 donor id: Sg. 3738. origin: Togo. local name: Ikingka. collected: 1977. collector id: TO 476. other id: NSL 168051. locality: Afem village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515844 donor id: Sg. 3739. origin: Togo. local name: Ifono. collected: 1977. collector id: TO 477. other id: NSL 168052. locality: Afem village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515845 donor id: Sg. 3740. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 478. other id: NSL 168053. locality: Afem village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515846 donor id: Sg. 3742. origin: Togo. local name: Mbone. collected: 1977. collector id: TO 484. other id: NSL 168945. locality: Ouassarabou village. remarks: Growing season 180 days. Race Guinea Caudatum. Cultivated. Seed.
- PI 515847 donor id: Sg. 3743. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 485. other id: NSL 168054. locality: Ouassarabou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515848 donor id: Sg. 3744. origin: Togo. local name: Mlakefolo. collected: 1977. collector id: TO 487. other id: NSL 168055. locality: Quassarabou village. Cultivated. Seed.
- PI 515849 donor id: Sg. 3745. origin: Togo. local name: Mlakessemde. collected: 1977. collector id: TO 487 bis. other id: NSL 168056. locality: Agoulou village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515850 donor id: Sg. 3746. origin: Togo. local name: Mladofoloumde. collected: 1977. collector id: TO 488 bis. other id: NSL 168057. locality: Agoulou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515851 donor id: Sg. 3747. origin: Togo. local name: Mbone. collected: 1977. collector id: TO 489. other id: NSL 168946. locality: Agoulou village. remarks: Growing season 180 days. Race Guinea x Caudatum. Cultivated. Seed.
- PI 515852 donor id: Sg. 3748. origin: Togo. local name: Mlakofoloumde. collected: 1977. collector id: TO 491. other id: NSL 168058. locality: Pazza Kotokoli village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515853 donor id: Sg. 3749. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 492. other id: NSL 168059. locality: Pazza Kotokoli village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515854 donor id: Sg. 3750. origin: Togo. local name: Mbone. collected: 1977. collector id: TO 493. other id: NSL 168947. locality: Pazza Kotokoli village. remarks: Growing season 180-210 days. Race Guinea x Caudatum. Cultivated. Seed.
- PI 515855 donor id: Sg. 3751. origin: Togo. local name: Kerigne. collected: 1977. collector id: TO 494. other id: NSL 169219. locality: Pazza Kotokoli village. remarks: Growing season 150-180 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515856 donor id: Sg. 3752. origin: Togo. local name: Mlakefolo. collected: 1977. collector id: TO 497. other id: NSL 168060. locality: Aleride village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515857 donor id: Sg. 3753. origin: Togo. local name: Mlakefolo. collected: 1977. collector id: TO 498. other id: NSL 168061. locality: Aleride village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515858 donor id: Sg. 3754. origin: Togo. local name: Mbone. collected: 1977. collector id: TO 499. other id: NSL 168948. locality: Aleride village. remarks: Growing season 180 days. Race Guinea x Caudatum. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515859 donor id: Sg. 3755. origin: Togo. local name: Mlakofoume. collected: 1977. collector id: TO 501. other id: NSL 168062. locality: Pagalam village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515860 donor id: Sg. 3756. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 502. other id: NSL 168063. locality: Pagalam village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515861 donor id: Sg. 3757. origin: Togo. local name: Mbone. collected: 1977. collector id: TO 503. other id: NSL 168949. locality: Pagalam village. remarks: Growing season 180-210 days. Race Guinea x Caudatum. Cultivated. Seed.
- PI 515862 donor id: Sg. 3758. origin: Togo. local name: Mlakofoloma. collected: 1977. collector id: TO 504. other id: NSL 168064. locality: Lama Tesse village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515863 donor id: Sg. 3760. origin: Togo. local name: Mlakofoloume. collected: 1977. collector id: TO 505. other id: NSL 168065. locality: Lama Tesse village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515864 donor id: Sg. 3759. origin: Togo. local name: Flandemela. collected: 1977. collector id: TO 504 bis. other id: NSL 168066. locality: Kanianboua village. remarks: Growing season 120 days. Race Guinea. Cultivated. Seed.
- PI 515865 donor id: Sg. 3761. origin: Togo. local name: Mohou. collected: 1977. collector id: TO 505 bis. other id: NSL 168067. locality: Kanianboua village. remarks: Growing season 180-210 days. Race Guinea. Cultivated. Seed.
- PI 515866 donor id: Sg. 3762. origin: Togo. local name: Mlakoloma. collected: 1977. collector id: TO 506. other id: NSL 168068. locality: Kanianboua village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515867 donor id: Sg. 3763. origin: Togo. local name: Mla. collected: 1977. collector id: TO 507. other id: NSL 168069. locality: Kaza village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515868 donor id: Sg. 3764. origin: Togo. local name: Mladelema. collected: 1977. collector id: TO 508. other id: NSL 168070. locality: Langabou village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515869 donor id: Sg. 3765. origin: Togo. local name: Mlakoloma. collected: 1977. collector id: TO 509. other id: NSL 168071. locality: Langabou village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515870 donor id: Sg. 3766. origin: Togo. local name: Bobakpipa. collected: 1977. collector id: TO 517. other id: NSL 168072. locality: Kougnoun village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515871 donor id: Sg. 3767. origin: Togo. local name: Abokouwewe. collected: 1977. collector id: TO 518. other id: NSL 168073. locality: Atchinedji village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515872 donor id: Sg. 3768. origin: Togo. local name: Abokouwowo. collected: 1977. collector id: TO 519. other id: NSL 168074. locality: Atchinedji village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515873 donor id: Sg. 3769. origin: Togo. local name: Ehoye. collected: 1977. collector id: TO 520. other id: NSL 168075. locality: Glito village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515874 donor id: Sg. 3770. origin: Togo. local name: Ehodjin. collected: 1977. collector id: TO 521. other id: NSL 168076. locality: Glito village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515875 donor id: Sg. 3771. origin: Togo. local name: Ehodjin. collected: 1977. collector id: TO 523. other id: NSL 168077. locality: Ountivou village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515876 donor id: Sg. 3773. origin: Togo. local name: Bobakpikpa. collected: 1977. collector id: TO 525. other id: NSL 168078. locality: Akpire village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.



PI 515580 to 515909-continued

- PI 515877 donor id: Sg. 3774. origin: Togo. local name: Ohloe. collected: 1977. collector id: TO 527. other id: NSL 168079. locality: Ezime village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515878 donor id: Sg. 3775. origin: Togo. local name: Bobakpikpa. collected: 1977. collector id: TO 531 bis. other id: NSL 168080. locality: Ele village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515879 donor id: Sg. 3776. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 535. other id: NSL 168081. locality: Kati village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515880 donor id: Sg. 3777. origin: Togo. local name: Ohloe. collected: 1977. collector id: TO 536. other id: NSL 168082. locality: Seva village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515881 donor id: Sg. 3778. origin: Togo. local name: Mlakofoloume. collected: 1977. collector id: TO 537. other id: NSL 168083. locality: Fazao village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515882 donor id: Sg. 3779. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 538. other id: NSL 168084. locality: Fazao village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515883 donor id: Sg. 3781. origin: Togo. local name: Djomologomola. collected: 1977. collector id: TO 541. other id: NSL 168085. locality: You village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515884 donor id: Sg. 3782. origin: Togo. local name: Djofela. collected: 1977. collector id: TO 542. other id: NSL 168086. locality: You village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515885 donor id: Sg. 3783. origin: Togo. local name: Youfloui. collected: 1977. collector id: TO 544. other id: NSL 168087. locality: Pagala village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515886 donor id: Sg. 3784. origin: Togo. local name: Youfloui. collected: 1977. collector id: TO 545. other id: NSL 168088. locality: Pagala village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515887 donor id: Sg. 3785. origin: Togo. local name: Youpoubal. collected: 1977. collector id: TO 546. other id: NSL 168089. locality: Pagala village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515888 donor id: Sg. 3786. origin: Togo. local name: Gagnansi. collected: 1977. collector id: TO 548. other id: NSL 168090. locality: Katchanke village. remarks: Race Guinea. Cultivated. Seed.
- PI 515889 donor id: Sg. 3787. origin: Togo. local name: Denabissia. collected: 1977. collector id: TO 549. other id: NSL 168091. locality: Tinkoro village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515890 donor id: Sg. 3788. origin: Togo. local name: Bobakikpe. collected: 1977. collector id: TO 551. other id: NSL 168092. locality: Agorika village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515891 donor id: Sg. 3791. origin: Togo. local name: Tchakparo. collected: 1977. collector id: TO 555. other id: NSL 169220. locality: Igboloudja village. remarks: Growing season 120-150 days. Race Durra x Caudatum. Cultivated. Seed.
- PI 515892 donor id: Sg. 3792. origin: Togo. local name: Bobakikpe. collected: 1977. collector id: TO 558. other id: NSL 168093. locality: Bade village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515893 donor id: Sg. 3793. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 560. other id: NSL 168094. locality: Akaba village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515894 donor id: Sg. 3794. origin: Togo. local name: Sotouboua. collected: 1977. collector id: TO 561. other id: NSL 168095. locality: Akaba village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.
- PI 515895 donor id: Sg. 3795. origin: Togo. local name: Makbara. collected: 1977. collector id: TO 562. other id: NSL 168096. locality: Akaba village. remarks: Growing season 180 days. Race Guinea. Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515896 donor id: Sg. 3796. origin: Togo. local name: Yaka.  
collected: 1977. collector id: TO 563. other id: NSL  
168097. locality: Akaba village. remarks: Growing  
season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515897 donor id: Sg. 3797. origin: Togo. local name: Katchina.  
collected: 1977. collector id: TO 564. other id: NSL  
168098. locality: Akaba village. remarks: Growing  
season 150 days. Race Guinea. Cultivated. Seed.
- PI 515898 donor id: Sg. 3798. origin: Togo. local name: Tchamba.  
collected: 1977. collector id: TO 565. other id: NSL  
168099. locality: Akaba village. remarks: Growing  
season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515899 donor id: Sg. 3799. origin: Togo. local name: Epodjin.  
collected: 1977. collector id: TO 566. other id: NSL  
168100. locality: Agoume village. remarks: Growing  
season 150 days. Race Guinea. Cultivated. Seed.
- PI 515900 donor id: Sg. 3800. origin: Togo. local name: Epohe.  
collected: 1977. collector id: TO 567. other id: NSL  
168101. locality: Agoume village. remarks: Growing  
season 180 days. Race Guinea. Cultivated. Seed.
- PI 515901 donor id: Sg. 3801. origin: Togo. local name: Tchakpao.  
collected: 1977. collector id: TO 568. other id: NSL  
169221. locality: Agoume village. remarks: Growing  
season 120-150 days. Race Durra x Caudatum. Cultivated.  
Seed.
- PI 515902 donor id: Sg. 3802. origin: Togo. local name:  
Bobakikpe. collected: 1977. collector id: TO 569.  
other id: NSL 168102. locality: Illougba village.  
remarks: Growing season 150 days. Race Guinea.  
Cultivated. Seed.
- PI 515903 donor id: Sg. 3803. origin: Togo. local name:  
Bobafoulou. collected: 1977. collector id: TO 570.  
other id: NSL 168103. locality: Illougba village.  
remarks: Growing season 180 days. Race Guinea.  
Cultivated. Seed.
- PI 515904 donor id: Sg. 3804. origin: Togo. local name:  
Obokonvovo. collected: 1977. collector id: TO 572.  
other id: NSL 168104. locality: Amoutchou village.  
remarks: Growing season 150-180 days. Race Guinea.  
Cultivated. Seed.

PI 515580 to 515909-continued

- PI 515905 donor id: Sg. 3806. origin: Togo. local name: Mlakessema. collected: 1977. collector id: TO 574. other id: NSL 168105. locality: Wahala village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515906 donor id: Sg. 3808. origin: Togo. local name: Owleve. collected: 1977. collector id: TO 576. other id: NSL 168106. locality: Kpegnon village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515907 donor id: Sg. 3809. origin: Togo. local name: Epo. collected: 1977. collector id: TO 578. other id: NSL 168107. locality: Aliti village. remarks: Growing season 150 days. Race Guinea. Cultivated. Seed.
- PI 515908 donor id: Sg. 3810. origin: Togo. local name: Epo. collected: 1977. collector id: TO 580. other id: NSL 168108. locality: Hahomogbe village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.
- PI 515909 donor id: Sg. 3811. origin: Togo. local name: Epo. collected: 1977. collector id: TO 581. other id: NSL 168109. locality: Kpele village. remarks: Growing season 150-180 days. Race Guinea. Cultivated. Seed.

PI 515910 to 515918. Sorghum sp. POACEAE

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

- PI 515910 donor id: Sg. 3531. origin: Togo. collected: 1977. collector id: TO 118. other id: NSL 169302. locality: Sawaga village. remarks: Growing season 180 days. Cultivated. Seed.
- PI 515911 donor id: Sg. 3591. origin: Togo. local name: Pededidili. collected: 1977. collector id: TO 237. other id: NSL 169304. locality: Ossakee village. Cultivated. Seed.
- PI 515912 donor id: Sg. 3609. origin: Togo. local name: Djante. collected: 1977. collector id: TO 274. other id: NSL 169305. locality: Slou village. remarks: Growing season 150 days. Cultivated. Seed.
- PI 515913 donor id: Sg. 3617. origin: Togo. local name: Amegnakou. collected: 1977. collector id: TO 290. other id: NSL 169306. locality: Atalote village. remarks: Growing season 150 days. Cultivated. Seed.

PI 515910 to 515918-continued

- PI 515914 donor id: Sg. 3666. origin: Togo. local name: Amegnakou. collected: 1977. collector id: TO 373. other id: NSL 169307. locality: Maga village. Cultivated. Seed.
- PI 515915 donor id: Sg. 3667. origin: Togo. local name: Amegnakou. collected: 1977. collector id: TO 374. other id: NSL 169308. locality: Maga village. Cultivated. Seed.
- PI 515916 donor id: Sg. 3691. origin: Togo. local name: Adjeto. collected: 1977. collector id: TO 408. other id: NSL 169309. locality: Santeo village. remarks: Growing season 180-210 days. Cultivated. Seed.
- PI 515917 donor id: Sg. 3702. origin: Togo. local name: Anakateba. collected: 1977. collector id: TO 424. other id: NSL 169310. locality: Petab village. remarks: Growing season 90-120 days. Cultivated. Seed.
- PI 515918 donor id: Sg. 3790. origin: Togo. local name: Bobakikpe. collected: 1977. collector id: TO 555. other id: NSL 169311. locality: Igboloudja village. remarks: Growing season 150 days. Cultivated. Seed.

PI 515919. *Solanum tuberosum* L. SOLANACEAE Potato

Donated by: Wallmuller, W., Widdumhof-Moosbach, 8802 Winsbach, Germany, Fed Repub of. Received April 5, 1984.

origin: Germany, Federal Rep of. cultivar: CAROLA. other id: Q 24546B. other id: Registry No. K2244. remarks: Early. Predominantly fast boiling type. Tubers yellow, medium sized and textured. Skin netted. Slight sprouting in winter storage. Medium-high market value. Slightly susceptible to leaf roll and Y viruses. Negligible to slightly susceptible to A virus, slightly susceptible to scurf. Cultivar. Tuber.

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.

origin: Soviet Union. cultivar: HIBINSKIJ ZANNIJ. other id: Q 22515. Cultivar. Tuber.

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

**Donated by:** Marshall, H.G., USDA-ARS, Dept. of Agronomy, Penn State Univ., 318 B Tyson Bldg., University Park, Pennsylvania, United States. Received January 19, 1988.

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 515922 to 515947-continued

- PI 515929 **donor id:** PA 8393-15050. **origin:** United States.  
**pedigree:** Pennlo/79G252-1(Ed 26/Noble). **other id:** Cross No. XK80G131. **remarks:** Plants short. Maturity very early. Kernels good. Breeding Material. Seed.
- PI 515930 **donor id:** PA 8393-17361. **origin:** United States.  
**pedigree:** PA 7836-4831(Dal/Noble)/Pennlo. **other id:** Cross No. XK80G5. **remarks:** Plants very short. Maturity late. Yield high. Breeding Material. Seed.
- PI 515931 **donor id:** PA 8494-1468. **origin:** United States.  
**pedigree:** PA 7733-2405(Ed 26/Dal)/Pa 7733-2471(Otee/Mtz).  
**other id:** Cross No. XM79G73. **remarks:** Plants very short. Maturity late. Leaf retention good. Breeding Material. Seed.
- PI 515932 **donor id:** PA 8494-4099. **origin:** United States.  
**pedigree:** PA 7628-1182(Otee/Noble)/Ogle. **other id:** Cross No. XK78G201. **remarks:** Plants tall. Maturity late. Yield very high. Leaf blight incidence low. Breeding Material. Seed.
- PI 515933 **donor id:** PA 8494-5426. **origin:** United States.  
**pedigree:** PA 7836-1253(PA Comp. 24 Sel)/79G252-1(Ed 26/Noble). **other id:** Cross No. XM80G251. **remarks:** Plants short. Maturity intermediate. Straw very stiff. Breeding Material. Seed.
- PI 515934 **donor id:** PA 8494-11717. **origin:** United States.  
**pedigree:** PA 7733-1324(Otee/Noble)/Ed 23. **other id:** Cross No. XM79G149. **remarks:** Plants medium-short. Maturity late. Yield high. Test weight good. Breeding Material. Seed.
- PI 515935 **donor id:** PA 8494-13450. **origin:** United States.  
**pedigree:** PA 7836-7386(Mapua 70/Noble)/Pennline 6571.  
**other id:** Cross No. XM80G242. **remarks:** Plants short. Maturity late. Straw stiff. Kernels good. Breeding Material. Seed.
- PI 515936 **donor id:** PA 8499-422. **origin:** United States. **pedigree:** MO 060305/Otee. **other id:** Cross No. XW76G105. **remarks:** Plants tall. Maturity late. Post-ripe lodging resistance good. Breeding Material. Seed.
- PI 515937 **donor id:** PA 8499-438. **origin:** United States. **pedigree:** MO 060305/Otee. **other id:** Cross No. XW76G105. **remarks:** Plants tall. Maturity late. Post-ripe lodging resistance good. Breeding Material. Seed.

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. **remarks:** Plants short. Maturity intermediate. Test weight good. Breeding Material. Seed.

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. **remarks:** Stems thick. Rhizomes extensive. Excellent sand dune stabilizing plant. Growth most vigorous south of Maryland. Adapted to coastal dunes and sandy shores from Connecticut to Florida and Texas. Perennial. Breeding Material. Seed.

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:** CN-00252. **other id:** MLRA: 153. **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.

**donor id:** OH 257. **origin:** United States. **cultivar:** GR876. **pedigree:** Hart/Va.66-54-10//Kavkaz/Pur 6693.  
**other id:** 12673-17. **remarks:** Soft, red type. Plants medium height, late maturity. Chaff bearded, white. Auricles purple prior to maturity. Heads large. Kernels large. Yields well from late plantings. Milling and baking quality satisfactory. Highest test weight of all varieties tested. **disease resistance:** Mildew, wheat spindle streak mosaic. Very resistant to leaf rust. Winter Annual. Cultivar. Seed.

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

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, Pullman, Washington, United States. Received February 01, 1988.

**origin:** UNKNOWN. **remarks:** Seed contributed by Martin Steen in 1984 after storage in laboratory vial 30-50 years. **received as:** *T. neoana*. Wild. Seed.

PI 515953. *Trigonella foenum-graecum* L. FABACEAE Fenugreek

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, Pullman, Washington, United States. Received February 01, 1988.

PI 515953-continued

**origin:** Iran. **local name:** Ahwazi. **collected:** 1969.  
**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,  
1988.

**donor id:** MNUCKSW. **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,  
1988.

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 515956 **donor id:** MN NN-3226. **origin:** United States. **pedigree:** Selection from germplasm pool MN NC. **other id:** GP-204. **source:** Crop Sci. 28(4):0721. **group:** CSR-ALFALFA. **remarks:** Ineffective nodulation, non-nitrogen fixing type for use as a control and research on nodule development. Ineffective nodule trait conditioned by the gene in2. Breeding Material. Seed.

PI 515957 **donor id:** MN IN-3811. **origin:** United States. **pedigree:** Selection from germplasm pool MN NC. **other id:** GP-205. **source:** Crop Sci. 28(4):0721. **group:** CSR-ALFALFA. **remarks:** Ineffective nodulation, non-nitrogen fixing type for use as a control and research on nodule development. Ineffective nodule trait conditioned by the gene in3. Breeding Material. Seed.

PI 515958 **donor id:** MN IN-Sar. **origin:** United States. **pedigree:** Single plant selection from Saranac. **other id:** GP-206. **source:** Crop Sci. 28(4):0721. **group:** CSR-ALFALFA. **remarks:** Ineffective nodulation, non-nitrogen fixing type for use as a control and research on nodule development. Ineffective nodule trait conditioned by the gene in1. Breeding Material. Seed.

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.

**donor id:** MT-3. **origin:** United States. **pedigree:** Selection from RRC-1041. **other id:** GP-1. **group:** CSR-MISC CROP. **remarks:** Mexican grain type. Height uniform. Main central panicle with thick erect to drooping, finger-like branches. Main stalk thin, especially at high density plantings and varying degrees of side branching at low densities. Flowers light green. Seeds white with some black-seeded segregates. Grain yield 5341 kg/ha in 1987 at Huntley, Montana. Breeding Material. Seed.

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

**donor id:** D79-6162. **origin:** United States. **cultivar:** SHARKEY. **pedigree:** Tracy/Centennial. **other id:** CV-213. **source:** Crop Sci. 28(4):0720. **group:** CSR-SOYBEAN. **remarks:** Plant determinate, tawny pubescence, high yielding. Maturity Group VI. Flowers white. Pod walls tan. Seed yellow with black hila, 14.7g/100. Best adapted on soils where many other Group VI cultivars make inadequate growth. **disease resistance:** Bacterial pustule; carries genes Rdpl & Rdp2 to stem canker. Carries genes Rpslc and Rps3 to phytophthora rot. **nematode resistance:** Root knot (Meloidogyne incognita). Cultivar. Seed.

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.

**donor id:** KY79-0237. **origin:** United States. **cultivar:** PENNYRILE. **pedigree:** Williams/Essex. **other id:** CV-212. **source:** Crop Sci. 28(4):0719. **group:** CSR-SOYBEAN. **remarks:** Plants indeterminate, tawny pubescence, superior yield. Maturity Group IV. Flowers white. Pod walls tan. Seeds dull yellow with black hila and positive seed peroxidase activity. Susceptible to phytophthora rot and the soybean cyst nematode. Cultivar. Seed.

PI 515962 to 515965. Beta vulgaris L. CHENOPODIACEAE Sugarbeet

**Donated by:** Lewellen, R.T.; Skoyen, I.O., USDA-ARS, U.S. Agr. Research Station, Salinas, California, United States. **remarks:** Cooperative investigations by USDA-ARS, the Beet Sugar Development Foundation, and the California Beet Growers Assoc. Received February 10, 1988.

PI 515962 **donor id:** C310. **origin:** United States. **pedigree:** Recombination of 13 advanced self-fertile lines. **other id:** GP-122. **source:** Crop Sci. 28(5):0873. **group:** CSR-SUGARBEET. **other id:** popn-755. **remarks:** Plants self-fertile, random-mated, monogerm segregates for O-type, good combining ability for super yield. Useful for parental line development and population improvement. Moderately resistant to bolting. Moderately susceptible to virus yellows complex. Susceptible to cercospora leaf spot, black root, and rhizoctonia root rot. **disease resistance:** Moderate to curly top, Erwinia root rot, powdery mildew. Lettuce infectious yellows, downy mildew, and rust. Breeding Material. Seed.

PI 515962 to 515965-continued

- PI 515963 **donor id:** C789/2. **origin:** United States. **other id:** GP-123. **source:** Crop Sci. 28(5):0873. **group:** CSR-SUGARBEET. **other id:** popn-743. **remarks:** Plants self-fertile, random-mated, monogerm, high frequency of O-type. Useful for inbred or parental line development. Selection index favored sucrose concentration. Moderately resistant to bolting. Susceptible to lettuce infectious yellows, cercospora leaf spot, black root, and rhizoctonia root rot. **disease resistance:** Moderate to curly top, virus yellows complex. Erwinia root rot, powdery mildew, downy mildew, and rust. Breeding Material. Seed.
- PI 515964 **donor id:** C790. **origin:** United States. **other id:** GP-124. **source:** Crop Sci. 28(5):0873. **group:** CSR-SUGARBEET. **other id:** popn-790. **remarks:** Plants self-fertile, random-mated, monogerm, high frequency of O-type. Useful for inbred or parental line development. Selection index favored sucrose concentration. Moderately resistant to bolting. Susceptible to cercospora leaf rust, black root, and rhizoctonia root rot. Moderately susceptible to virus yellows complex, Erwinia root rot, powdery mildew, and lettuce infectious yellows. **disease resistance:** Moderate to curly top, downy mildew, and rust. Breeding Material. Seed.
- PI 515965 **donor id:** C796. **origin:** United States. **other id:** GP-125. **source:** Crop Sci. 28(5):0873. **group:** CSR-SUGARBEET. **other id:** popn-796. **remarks:** Plants self-fertile, random-mated, monogerm, high frequency of O-type. High combining ability for resistance to curly top, virus yellows complex, Erwinia root rot, and bolting. Moderately resistant to bolting. Susceptible to cercospora leaf spot, black root, rhizoctonia root rot, powdery mildew, and lettuce infectious yellows. **disease resistance:** Moderate to curly top, virus yellows complex. Erwinia root rot, downy mildew and rust. Breeding Material. Seed.

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 515966 **donor id:** Composite Cross XXXI-A. **origin:** United States. **pedigree:** Natural outcrossing of Freja, Carlsberg, and Heines Hanna ms females with 22 male parents, F30. **other id:** GP-95. **source:** Crop Sci. 28(4):0722. **group:** CSR-BARLEY. **remarks:** Two-rowed population variable for maturity, plant height, and other characteristics but with no male sterility. Potential use in selecting genotypes adapted to environments similar to the Bozeman area. Spring Annual. Breeding Material. Seed.

PI 515967 **donor id:** Composite Cross XXXI-B. **origin:** United States. **pedigree:** Natural outcrossing of Freja, Carlsberg, and Heines Hanna ms females with 22 male parents, Sib 18. **other id:** GP-96. **source:** Crop Sci. 28(4):0722. **group:** CSR-BARLEY. **remarks:** Two-rowed population variable for many traits with 1:1 ratio of fertile to sterile plants. Potential use for selecting superior genotypes with both female receptivity for outcrossing and pollen production. Spring Annual. Breeding Material. Seed.

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.

**origin:** Korea, Republic of. **remarks:** Entry in medicinal plants nursery. Cultivated. Seed.

PI 515969. *Lens culinaris* Medikus FABACEAE Lentil

**Donated by:** Annone, J.G., EERA, INTA CC 31, 2700 Pergamino, Buenos Aires, Argentina. Received January 26, 1988.

**origin:** Argentina. **cultivar:** PRECOZ. **other id:** C14529. Cultivar. Seed.

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

**donor id:** AR 48-7-4. **origin:** United States. **cultivar:** KEISER. **pedigree:** Purdue 5724B3-5P-8-2/Blueboy. **other id:** CV-739. **group:** CSR-WHEAT. **remarks:** Plants tall. Soft red type. Produces higher yields than previous releases. Test weight good. Milling qualities good. Baking qualities fair. Straw strength adequate. More productive on heavy-textured soils than on sandy soils. **disease resistance:** Leaf rust, Septoria tritici, Septoria nodorum. Moderate to stem and stripe rust. Tolerant to take-all and barley yellow dwarf virus. Winter Annual. Cultivar. Seed.

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.

**donor id:** 421. **origin:** United States. **local name:** Chet's. **locality:** Tonasket. **remarks:** Skin white with purple stripes. Plants flower. Old master gardener type grown for over 25 years. Received September 1985. Cultivated. Bulbs.

PI 515972 to 515973. *Allium sativum* L. LILIACEAE Garlic

**Donated by:** Hannan, R.M., Western Regional P.I. Station, USDA-ARS, Washington State University, Pullman, Washington, United States. Received February 01, 1988.

PI 515972 **origin:** United States. **local name:** Music. **locality:** Near Pullman. **remarks:** Bulb small, white-skinned. Plants produce a 30cm long scape. Heirloom type grown for over 70 years. Received August 1985. **cold tolerance:** Winter hardy. Cultivated. Bulbs.

PI 515973 **origin:** United States. **local name:** French red. **locality:** Palouse. **remarks:** Bulbs large, red-skinned. Plant produce 40cm tall straight scape with single inflorescence. Used as herb and condiment. Donated by Greg Wichelns. Received October 1985. **cold tolerance:** Winter hardy. Cultivated. Bulbs.

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 515982 donor id: 150785-05. origin: Turkey. collected: July 15, 1985. locality: Field, in piles, rocky, brown soil, Yalman village, 43km to Aksaray, Nevsehir-Aksaray road, Nigde Province. Cultivated. Seed.
- PI 515983 donor id: 220785-04. origin: Turkey. collected: July 22, 1985. locality: Weed in lentil field, 24km to Afyon, Afyon-Ankara road, Afyan Province. elevation: 1060m. Wild. Seed.

PI 515984. *Vicia montbretii* Fischer & C. Meyer FABACEAE

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.

donor id: 090785-0303. origin: Turkey. collected: July 09, 1985. Wild. Seed.

PI 515985 to 515987. *Vicia narbonensis* L. FABACEAE Narbonne 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 515985 donor id: 210785-01. origin: Turkey. collected: July 21, 1985. remarks: Pod spot infection, possibly ascochyta. Wild. Seed.
- PI 515986 donor id: 220785-02. origin: Turkey. collected: July 22, 1985. locality: Weed, chickpea field, near Sivrihisar, Eskisehir Province. Wild. Seed.
- PI 515987 donor id: 270785-02. origin: Turkey. collected: July 27, 1985. locality: On road to Kutahya, 39km from Eskisehir, Kutahya Province. elevation: 900m. remarks: Seeds mostly shattered from pods. Wild. Seed.

PI 515988 to 515989. *Vicia villosa* Roth FABACEAE Hairy 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 515988 to 515989-continued

PI 515988 donor id: 190785-0101. origin: Turkey. collected: July 19, 1985. locality: Kizilinis, 12km to Tokat from intersection of Tokat-Sivas, Tokat Province. elevation: 1200m. Wild. Seed.

PI 515989 donor id: 210785-01. origin: Turkey. collected: July 21, 1985. locality: 45km to Iskilip from Corum, Corum Province. elevation: 850m. remarks: Pod lesions, possibly ascochyta. Wild. Seed.

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

Donated by: Nagy, M., Research Centre for Agrobotany, I.P.P.Q., Tapioszele, Hungary. Received February 01, 1988.

PI 515990 donor id: VII-1-158. origin: Hungary. locality: Dunaszegi. Landrace. Seed.

PI 515991 donor id: VII-1-214. origin: Hungary. locality: Nagykalloi. Landrace. Seed.

PI 515992 donor id: VII-1-234. origin: Hungary. locality: Boldogi. Landrace. Seed.

PI 515993 donor id: VII-1-235. origin: Hungary. locality: Pusztamonostori. Landrace. Seed.

PI 515994 donor id: VII-1-239. origin: Hungary. locality: Nagykalloi. remarks: Leaves 31cm long, medium green, density thin. Root narrowly obtriangular, 20cm long. Shoulder breadth 1.7cm long. Taste bad. Landrace. Seed.

PI 515995 donor id: VII-1-240. origin: Hungary. locality: Nyiregyhazi. remarks: Leaves 28cm long, light green, density thin. Root narrowly obtriangular, 21cm long. Shoulder breadth 2.8cm long. Taste poor. Landrace. Seed.

PI 515996 donor id: VII-1-245. origin: Hungary. locality: Debreceni. remarks: Leaves 37cm long, medium green, density medium. Root narrowly obtriangular, 27cm long. Shoulder breadth 2.4cm long. Taste bad. Landrace. Seed.

PI 515997 donor id: VII-1-251. origin: Hungary. locality: Bekescsabai. remarks: Leaves 50cm long, light green, density medium. Root obtriangular, 14cm long. Shoulder breadth 4.6cm. Taste good. Landrace. Seed.

PI 515990 to 516001-continued

- PI 515998 donor id: VII-1-252. origin: Hungary. locality: Korostarcasai. remarks: Leaves 51cm long, light green, medium density. Roots narrowly oblong, 19cm long. Shoulder breadth 5.4cm. Taste good. Landrace. Seed.
- PI 515999 donor id: VII-1-253. origin: Hungary. remarks: Leaves 53cm long, dark green, dense. Root narrowly obtriangular, 24cm long. Shoulder breadth 4.9cm long. Taste good. Landrace. Seed.
- PI 516000 donor id: 3372-86. origin: Hungary. cultivar: KESZTHELYI HENGERES. remarks: Leaves medium green, dense. Root narrowly oblong. Cultivar. Seed.
- PI 516001 origin: Hungary. cultivar: FERTODI VOROS. locality: Shop. Cultivar. Seed.

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.

- PI 516002 donor id: ARZM 16 001. origin: Argentina. Cultivated. Seed.
- PI 516003 donor id: ARZM 16 002. origin: Argentina. Cultivated. Seed.
- PI 516004 donor id: ARZM 16 003. origin: Argentina. Cultivated. Seed.
- PI 516005 donor id: ARZM 16 004. origin: Argentina. Cultivated. Seed.
- PI 516006 donor id: ARZM 16 005. origin: Argentina. Cultivated. Seed.
- PI 516007 donor id: ARZM 16 006. origin: Argentina. Cultivated. Seed.
- PI 516008 donor id: ARZM 16 007. origin: Argentina. Cultivated. Seed.
- PI 516009 donor id: ARZM 16 008. origin: Argentina. Cultivated. Seed.
- PI 516010 donor id: ARZM 16 009. origin: Argentina. Cultivated. Seed.

PI 516002 to 516176-continued

PI 516011	donor id: ARZM 16 010. Seed.	origin: Argentina.	Cultivated.
PI 516012	donor id: ARZM 16 011. Seed.	origin: Argentina.	Cultivated.
PI 516013	donor id: ARZM 16 012. Seed.	origin: Argentina.	Cultivated.
PI 516014	donor id: ARZM 16 013. Seed.	origin: Argentina.	Cultivated.
PI 516015	donor id: ARZM 16 014. Seed.	origin: Argentina.	Cultivated.
PI 516016	donor id: ARZM 16 015. Seed.	origin: Argentina.	Cultivated.
PI 516017	donor id: ARZM 16 016. Seed.	origin: Argentina.	Cultivated.
PI 516018	donor id: ARZM 16 017. Seed.	origin: Argentina.	Cultivated.
PI 516019	donor id: ARZM 16 018. Seed.	origin: Argentina.	Cultivated.
PI 516020	donor id: ARZM 16 019. Seed.	origin: Argentina.	Cultivated.
PI 516021	donor id: ARZM 16 020. Seed.	origin: Argentina.	Cultivated.
PI 516022	donor id: ARZM 16 021. Seed.	origin: Argentina.	Cultivated.
PI 516023	donor id: ARZM 16 022. Seed.	origin: Argentina.	Cultivated.
PI 516024	donor id: ARZM 16 023. Seed.	origin: Argentina.	Cultivated.
PI 516025	donor id: ARZM 16 024. Seed.	origin: Argentina.	Cultivated.
PI 516026	donor id: ARZM 16 025. Seed.	origin: Argentina.	Cultivated.
PI 516027	donor id: ARZM 16 026. Seed.	origin: Argentina.	Cultivated.

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.		

PI 516002 to 516176-continued

PI 516045	donor id: ARZM 16 044.	origin: Argentina.	Cultivated.
	Seed.		
PI 516046	donor id: ARZM 16 045.	origin: Argentina.	Cultivated.
	Seed.		
PI 516047	donor id: ARZM 16 046.	origin: Argentina.	Cultivated.
	Seed.		
PI 516048	donor id: ARZM 16 047.	origin: Argentina.	Cultivated.
	Seed.		
PI 516049	donor id: ARZM 16 048.	origin: Argentina.	Cultivated.
	Seed.		
PI 516050	donor id: ARZM 16 049.	origin: Argentina.	Cultivated.
	Seed.		
PI 516051	donor id: ARZM 16 050.	origin: Argentina.	Cultivated.
	Seed.		
PI 516052	donor id: ARZM 16 051.	origin: Argentina.	Cultivated.
	Seed.		
PI 516053	donor id: ARZM 16 052.	origin: Argentina.	Cultivated.
	Seed.		
PI 516054	donor id: ARZM 16 053.	origin: Argentina.	Cultivated.
	Seed.		
PI 516055	donor id: ARZM 16 054.	origin: Argentina.	Cultivated.
	Seed.		
PI 516056	donor id: ARZM 16 055.	origin: Argentina.	Cultivated.
	Seed.		
PI 516057	donor id: ARZM 16 056.	origin: Argentina.	Cultivated.
	Seed.		
PI 516058	donor id: ARZM 16 057.	origin: Argentina.	Cultivated.
	Seed.		
PI 516059	donor id: ARZM 16 058.	origin: Argentina.	Cultivated.
	Seed.		
PI 516060	donor id: ARZM 16 059.	origin: Argentina.	Cultivated.
	Seed.		
PI 516061	donor id: ARZM 16 060.	origin: Argentina.	Cultivated.
	Seed.		

PI 516002 to 516176-continued

PI 516062	donor id: ARZM 16 061. Seed.	origin: Argentina.	Cultivated.
PI 516063	donor id: ARZM 16 062. Seed.	origin: Argentina.	Cultivated.
PI 516064	donor id: ARZM 16 063. Seed.	origin: Argentina.	Cultivated.
PI 516065	donor id: ARZM 16 064. Seed.	origin: Argentina.	Cultivated.
PI 516066	donor id: ARZM 16 065. Seed.	origin: Argentina.	Cultivated.
PI 516067	donor id: ARZM 16 067. Seed.	origin: Argentina.	Cultivated.
PI 516068	donor id: ARZM 16 068. Seed.	origin: Argentina.	Cultivated.
PI 516069	donor id: ARZM 16 069. Seed.	origin: Argentina.	Cultivated.
PI 516070	donor id: ARZM 16 070. Seed.	origin: Argentina.	Cultivated.
PI 516071	donor id: ARZM 16 071. Seed.	origin: Argentina.	Cultivated.
PI 516072	donor id: ARZM 16 075. Seed.	origin: Argentina.	Cultivated.
PI 516073	donor id: ARZM 19 001. Seed.	origin: Argentina.	Cultivated.
PI 516074	donor id: ARZM 19 002. Seed.	origin: Argentina.	Cultivated.
PI 516075	donor id: ARZM 19 003. Seed.	origin: Argentina.	Cultivated.
PI 516076	donor id: ARZM 19 004. Seed.	origin: Argentina.	Cultivated.
PI 516077	donor id: ARZM 19 005. Seed.	origin: Argentina.	Cultivated.
PI 516078	donor id: ARZM 19 006. Seed.	origin: Argentina.	Cultivated.



PI 516002 to 516176-continued

PI 516079	donor id: ARZM 19 007. Seed.	origin: Argentina.	Cultivated.
PI 516080	donor id: ARZM 19 008. Seed.	origin: Argentina.	Cultivated.
PI 516081	donor id: ARZM 19 009. Seed.	origin: Argentina.	Cultivated.
PI 516082	donor id: ARZM 19 010. Seed.	origin: Argentina.	Cultivated.
PI 516083	donor id: ARZM 19 011. Seed.	origin: Argentina.	Cultivated.
PI 516084	donor id: ARZM 19 012. Seed.	origin: Argentina.	Cultivated.
PI 516085	donor id: ARZM 19 013. Seed.	origin: Argentina.	Cultivated.
PI 516086	donor id: ARZM 19 014. Seed.	origin: Argentina.	Cultivated.
PI 516087	donor id: ARZM 19 015. Seed.	origin: Argentina.	Cultivated.
PI 516088	donor id: ARZM 19 016. Seed.	origin: Argentina.	Cultivated.
PI 516089	donor id: ARZM 19 017. Seed.	origin: Argentina.	Cultivated.
PI 516090	donor id: ARZM 19 018. Seed.	origin: Argentina.	Cultivated.
PI 516091	donor id: ARZM 19 019. Seed.	origin: Argentina.	Cultivated.
PI 516092	donor id: ARZM 19 020. Seed.	origin: Argentina.	Cultivated.
PI 516093	donor id: ARZM 19 021. Seed.	origin: Argentina.	Cultivated.
PI 516094	donor id: ARZM 19 022. Seed.	origin: Argentina.	Cultivated.
PI 516095	donor id: ARZM 19 024. Seed.	origin: Argentina.	Cultivated.

PI 516002 to 516176-continued

PI 516096	donor id: ARZM 19 025. Seed.	origin: Argentina.	Cultivated.
PI 516097	donor id: ARZM 19 026. Seed.	origin: Argentina.	Cultivated.
PI 516098	donor id: ARZM 19 027. Seed.	origin: Argentina.	Cultivated.
PI 516099	donor id: ARZM 19 028. Seed.	origin: Argentina.	Cultivated.
PI 516100	donor id: ARZM 19 029. Seed.	origin: Argentina.	Cultivated.
PI 516101	donor id: ARZM 19 030. Seed.	origin: Argentina.	Cultivated.
PI 516102	donor id: ARZM 19 031. Seed.	origin: Argentina.	Cultivated.
PI 516103	donor id: ARZM 19 032. Seed.	origin: Argentina.	Cultivated.
PI 516104	donor id: ARZM 19 033. Seed.	origin: Argentina.	Cultivated.
PI 516105	donor id: ARZM 19 034. Seed.	origin: Argentina.	Cultivated.
PI 516106	donor id: ARZM 19 035. Seed.	origin: Argentina.	Cultivated.
PI 516107	donor id: ARZM 19 036. Seed.	origin: Argentina.	Cultivated.
PI 516108	donor id: ARZM 19 037. Seed.	origin: Argentina.	Cultivated.
PI 516109	donor id: ARZM 19 038. Seed.	origin: Argentina.	Cultivated.
PI 516110	donor id: ARZM 19 039. Seed.	origin: Argentina.	Cultivated.
PI 516111	donor id: ARZM 19 040. Seed.	origin: Argentina.	Cultivated.
PI 516112	donor id: ARZM 19 041. Seed.	origin: Argentina.	Cultivated.

PI 516002 to 516176-continued

PI 516113	donor id: ARZM 19 042. Seed.	origin: Argentina.	Cultivated.
PI 516114	donor id: ARZM 19 043. Seed.	origin: Argentina.	Cultivated.
PI 516115	donor id: ARZM 19 044. Seed.	origin: Argentina.	Cultivated.
PI 516116	donor id: ARZM 19 045. Seed.	origin: Argentina.	Cultivated.
PI 516117	donor id: ARZM 19 046. Seed.	origin: Argentina.	Cultivated.
PI 516118	donor id: ARZM 19 047. Seed.	origin: Argentina.	Cultivated.
PI 516119	donor id: ARZM 19 048. Seed.	origin: Argentina.	Cultivated.
PI 516120	donor id: ARZM 19 049. Seed.	origin: Argentina.	Cultivated.
PI 516121	donor id: ARZM 19 050. Seed.	origin: Argentina.	Cultivated.
PI 516122	donor id: ARZM 19 051. Seed.	origin: Argentina.	Cultivated.
PI 516123	donor id: ARZM 19 052. Seed.	origin: Argentina.	Cultivated.
PI 516124	donor id: ARZM 19 053. Seed.	origin: Argentina.	Cultivated.
PI 516125	donor id: ARZM 19 054. Seed.	origin: Argentina.	Cultivated.
PI 516126	donor id: ARZM 19 055. Seed.	origin: Argentina.	Cultivated.
PI 516127	donor id: ARZM 19 056. Seed.	origin: Argentina.	Cultivated.
PI 516128	donor id: ARZM 19 057. Seed.	origin: Argentina.	Cultivated.
PI 516129	donor id: ARZM 19 058. Seed.	origin: Argentina.	Cultivated.

PI 516002 to 516176-continued

PI 516130	donor id: ARZM 19 059. Seed.	origin: Argentina.	Cultivated.
PI 516131	donor id: ARZM 19 060. Seed.	origin: Argentina.	Cultivated.
PI 516132	donor id: ARZM 19 061. Seed.	origin: Argentina.	Cultivated.
PI 516133	donor id: ARZM 19 062. Seed.	origin: Argentina.	Cultivated.
PI 516134	donor id: ARZM 19 064. Seed.	origin: Argentina.	Cultivated.
PI 516135	donor id: ARZM 19 065. Seed.	origin: Argentina.	Cultivated.
PI 516136	donor id: ARZM 19 066. Seed.	origin: Argentina.	Cultivated.
PI 516137	donor id: ARZM 19 067. Seed.	origin: Argentina.	Cultivated.
PI 516138	donor id: ARZM 19 068. Seed.	origin: Argentina.	Cultivated.
PI 516139	donor id: ARZM 19 069. Seed.	origin: Argentina.	Cultivated.
PI 516140	donor id: ARZM 19 070. Seed.	origin: Argentina.	Cultivated.
PI 516141	donor id: ARZM 19 071. Seed.	origin: Argentina.	Cultivated.
PI 516142	donor id: ARZM 19 073. Seed.	origin: Argentina.	Cultivated.
PI 516143	donor id: ARZM 19 074. Seed.	origin: Argentina.	Cultivated.
PI 516144	donor id: ARZM 19 075. Seed.	origin: Argentina.	Cultivated.
PI 516145	donor id: ARZM 19 076. Seed.	origin: Argentina.	Cultivated.
PI 516146	donor id: ARZM 19 077. Seed.	origin: Argentina.	Cultivated.

PI 516002 to 516176-continued

PI 516147	donor id: ARZM 19 078. Seed.	origin: Argentina.	Cultivated.
PI 516148	donor id: ARZM 20 001. Seed.	origin: Argentina.	Cultivated.
PI 516149	donor id: ARZM 20 002. Seed.	origin: Argentina.	Cultivated.
PI 516150	donor id: ARZM 20 003. Seed.	origin: Argentina.	Cultivated.
PI 516151	donor id: ARZM 20 004. Seed.	origin: Argentina.	Cultivated.
PI 516152	donor id: ARZM 20 005. Seed.	origin: Argentina.	Cultivated.
PI 516153	donor id: ARZM 20 006. Seed.	origin: Argentina.	Cultivated.
PI 516154	donor id: ARZM 20 008. Seed.	origin: Argentina.	Cultivated.
PI 516155	donor id: ARZM 20 009. Seed.	origin: Argentina.	Cultivated.
PI 516156	donor id: ARZM 20 010. Seed.	origin: Argentina.	Cultivated.
PI 516157	donor id: ARZM 20 011. Seed.	origin: Argentina.	Cultivated.
PI 516158	donor id: ARZM 20 012. Seed.	origin: Argentina.	Cultivated.
PI 516159	donor id: ARZM 20 013. Seed.	origin: Argentina.	Cultivated.
PI 516160	donor id: ARZM 21 001. Seed.	origin: Argentina.	Cultivated.
PI 516161	donor id: ARZM 21 002. Seed.	origin: Argentina.	Cultivated.
PI 516162	donor id: ARZM 21 003. Seed.	origin: Argentina.	Cultivated.
PI 516163	donor id: ARZM 21 004. Seed.	origin: Argentina.	Cultivated.

PI 516002 to 516176-continued

PI 516164	donor id: ARZM 21 006.	origin: Argentina.	Cultivated. Seed.
PI 516165	donor id: ARZM 21 007.	origin: Argentina.	Cultivated. Seed.
PI 516166	donor id: ARZM 21 008.	origin: Argentina.	Cultivated. Seed.
PI 516167	donor id: ARZM 21 009.	origin: Argentina.	Cultivated. Seed.
PI 516168	donor id: ARZM 21 010.	origin: Argentina.	Cultivated. Seed.
PI 516169	donor id: ARZM 21 011.	origin: Argentina.	Cultivated. Seed.
PI 516170	donor id: ARZM 21 012.	origin: Argentina.	Cultivated. Seed.
PI 516171	donor id: ARZM 21 013.	origin: Argentina.	Cultivated. Seed.
PI 516172	donor id: ARZM 21 014.	origin: Argentina.	Cultivated. Seed.
PI 516173	donor id: ARZM 21 015.	origin: Argentina.	Cultivated. Seed.
PI 516174	donor id: ARZM 21 016.	origin: Argentina.	Cultivated. Seed.
PI 516175	donor id: ARZM 21 017.	origin: Argentina.	Cultivated. Seed.
PI 516176	donor id: ARZM 21 018.	origin: Argentina.	Cultivated. Seed.

PI 516177. *Dactylis glomerata* L. POACEAE Orchardgrass

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

**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.  
**remarks:** USDA-ARS 1987 Exploration for native grasses in northeastern Nevada and eastern Oregon. Received February 08, 1988.

- PI 516184 **donor id:** T-419. **origin:** United States. **collected:** July 23, 1987. **collector:** T.A. Jones, D.C. Nielson.  
**collector id:** T-419. **locality:** Highway 395, 8km N of Burns. **latitude:** 43 deg. 40 min. N. **longitude:** 118 deg. 59 min. W. **remarks:** Plants vigorous. Awns not divergent.  
**received as:** *Pseudoroegneria spicata*. Perennial. Wild. Seed.
- PI 516185 **donor id:** T-420. **origin:** United States. **collected:** July 23, 1987. **collector:** T.A. Jones, D.C. Nielson.  
**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 **donor id:** T-423. **origin:** United States. **collected:** July 23, 1987. **collector:** T.A. Jones, D.C. Nielson.  
**collector id:** T-423. **locality:** Highway 86, mile marker 27 (43.2km) E of Baker. **latitude:** 44 deg. 49 min. N. **longitude:** 117 deg. 23 min. W. **received as:** *Pseudoroegneria spicata*. Perennial. Wild. Seed.
- PI 516187 **donor id:** T-424. **origin:** United States. **collected:** July 23, 1987. **collector:** T.A. Jones, D.C. Nielson.  
**collector id:** T-424. **locality:** Hell's Canyon Road, 40km past Halfway junction. **received as:** *Pseudoroegneria spicata*. Perennial. Wild. Seed.
- PI 516188 **donor id:** T-425. **origin:** United States. **collected:** July 23, 1987. **collector:** T.A. Jones, D.C. Nielson.  
**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 **donor id:** T-426. **origin:** United States. **collected:** July 23, 1987. **collector:** T.A. Jones, D.C. Nielson.  
**collector id:** T-426. **locality:** Highway 82, W edge of Enterprise. **latitude:** 45 deg. 26 min. N. **longitude:** 117 deg. 19 min. W. **received as:** *Pseudoroegneria spicata*. Perennial. Wild. Seed.



PI 516184 to 516190-continued

PI 516190 donor id: T-428. origin: United States. collected: July 24, 1987. collector: T.A. Jones, D.C. Nielson. 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. remarks: USDA-ARS 1987 Exploration for native grasses in northeastern Nevada and eastern Oregon. Received February 08, 1988.

PI 516191 donor id: T-415. origin: United States. collected: July 22, 1987. collector: T.A. Jones, D.C. Nielson. collector id: T-415. locality: Oregon, 9.6km N of Denio, Nevada. latitude: 42 deg. 04 min. N. longitude: 118 deg. 36 min. W. remarks: Plants heavily infected with ergot. Perennial. Wild. Seed.

PI 516192 donor id: T-418. origin: United States. collected: July 22, 1987. collector: T.A. Jones, D.C. Nielson. collector id: T-418. locality: Bridge, E of road, N of French Glen. latitude: 42 deg. 53 min. N. longitude: 118 deg. 53 min. W. Perennial. Wild. Seed.

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. remarks: USDA-ARS 1987 Exploration for native grasses in northeastern Nevada and eastern Oregon. Received February 08, 1988.

PI 516193 donor id: T-414. origin: United States. collected: July 22, 1987. collector: T.A. Jones, D.C. Nielson. collector id: T-414. locality: Farmstead, 3.2km W of highways 95 and 140 junction, N of Winnemucca. latitude: 41 deg. 24 min. N. longitude: 117 deg. 50 min. W. remarks: Plant stand solid. Seed set good. Perennial. Wild. Seed.

PI 516194 donor id: T-417. origin: United States. collected: July 22, 1987. collector: T.A. Jones, D.C. Nielson. collector id: T-417. locality: Bridge, E of road, N of French Glen. latitude: 42 deg. 53 min. N. longitude: 118 deg. 53 min. W. remarks: Seed set good. Perennial. Wild. Seed.

PI 516193 to 516195-continued

PI 516195 **donor id:** T-484. **origin:** United States. **collected:** July 22, 1987. **collector:** T.A. Jones, D.C. Nielson.  
**collector id:** T-484. **locality:** Pasture along creek, 3400 W. Winnemucca Blvd., Winnemucca. **latitude:** 40 deg. 57 min. N. **longitude:** 117 deg. 45 min. W. **remarks:** Plant stand solid. Perennial. Wild. Seed.

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 516196 **donor id:** SW76-122C-59. **origin:** United States.  
**cultivar:** STEELE. **pedigree:** Composite cross. **other id:** SW76-59. **remarks:** Soft red type. Juvenile growth habit semi-erect. Height intermediate. Head tapering, middense, awnletted, white at maturity. Glumes long, midwide. Seed crease narrow, shallow. Embryo large. Adapted to Illinois, Ohio, Indiana, Missouri, Arkansas, Kentucky, and Tennessee. Susceptible to Hessian fly. **disease resistance:** Very good for Rhizoctonia, BYDV, Septoria leaf blotch. Good for leaf rust, tan spot, SBMV. Fair for stem rust and powdery mildew. Winter Annual. Cultivar. Seed.

PI 516197 **donor id:** FL72185A101-5-G9. **origin:** United States.  
**cultivar:** TRAVELER. **pedigree:** Coker 65-20//IN4946A4-18-2-10-1/Hadden/3/Vogel 5/Anderson//IN4946A4-18-2-10-1/Hadden. **other id:** 72-101. **remarks:** Soft red type. Plants light bronze chaffed, awned, short. Juvenile growth habit semi-erect. Heads tapering to strap, middense. Auricle anthocyanin and hairs present. Glumes short. Seeds ovate with rounded checks and a narrow, shallow crease. Adapted to southern soft red winter wheat region. Insect resistance: Fair to poor to Hessian fly. **disease resistance:** Excellent to powdery mildew, Rhizoctonia, septoria leaf blotch. Very good to leaf rust. Fair to good to BYDV & stripe rust. Fair to poor to septoria glume blotch. Winter Annual. Cultivar. Seed.

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 516198 **donor id:** 2B80-157. **origin:** United States. **cultivar:** B1203. **pedigree:** S7290//Klages/Summit. **remarks:** Two-row, malting type. Maturity midseason. Juvenile growth habit semiprostrate. Lemma awns long, rough. Seeds covered, midlong to long, semiwrinkled. Aleurone colorless or white. Adapted to intermountain irrigated areas of Colorado, Idaho, Montana, Wyoming, Washington, Oregon, and northern California. Malting quality excellent. Spring Annual. Cultivar. Seed.

PI 516199 **donor id:** 6B82-2637. **origin:** United States. **cultivar:** B1603. **pedigree:** Glenn/6B78-628//Morex/6B78-628. **remarks:** Six-row, malting type. Maturity midseason. Juvenile growth habit semi-erect. Glumes hairy with long, rough awns. Seeds covered, short to midlong, semiwrinkled. Aleurone colorless or white. Malting quality excellent. Adapted to upper midwestern barley areas of North and South Dakota, Minnesota, and Wisconsin. Spring Annual. Cultivar. Seed.

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 516200 **donor id:** H584-704. **origin:** United States. **cultivar:** W2501. **pedigree:** MN7357/Marshall. **remarks:** Hard red type. Plants short-semidwarf, medium-early maturity, high yielding. Juvenile growth semi-erect. Flag leaf recurved, twisted. Heads tapering to strap, middense, awned, white at maturity. Straw strength excellent. Glumes glabrous. Seeds midlong to long and collared. Seed crease narrow to midwide and middeep. Adapted to high yield areas of the spring wheat region. **disease resistance:** Good to stem and leaf rust; fair to foliar diseases. Spring Annual. Cultivar. Seed.

PI 516201 **donor id:** H584-700. **origin:** United States. **cultivar:** W2502. **pedigree:** MN7357/Marshall. **remarks:** Hard red type. Plants short-semidwarf, medium-early maturity, high yielding. Juvenile growth semi-erect. Flag leaf recurved, twisted. Heads tapering to strap, middense, awned, white at maturity. Straw strength excellent. Glumes glabrous, midlong and narrow. Seeds ovate with angular to rounded cheeks. Seed crease midwide to midlong. Adapted to high yield areas of the spring wheat region. **disease resistance:** Good to stem and leaf rust; fair to foliar diseases. Spring Annual. Cultivar. Seed.

PI 516202 to 516203. *Trifolium abyssinicum* D. Heller 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 516202 **origin:** Ethiopia. **remarks:** Received 12/14/79 from M. Thulin. **received as:** *T. calocephalum*. Annual. Wild. Seed.

PI 516203 **donor id:** S-219-2. **origin:** Ethiopia. **origin institute:** ILCA, Addis Ababa. **origin institute id:** 8503. **remarks:** Received 2/22/84. **received as:** *T. calocephalum*. Annual. Wild. Seed.

PI 516204 to 516208. *Trifolium africanum* Ser. 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 516204 **donor id:** S-69-3. **origin:** South Africa. **other id:** L85. **locality:** Cedara. **remarks:** Received 7/15/76 through Plant Introduction Office, Pretoria. Perennial. Wild. Seed.

PI 516205 **donor id:** S-69-4. **origin:** South Africa. **other id:** L87. **locality:** Ermelo. **remarks:** Received 7/15/76 through Plant Introduction Office, Pretoria. Perennial. Wild. Seed.

PI 516206 **donor id:** S-69-6. **origin:** South Africa. **other id:** L89. **locality:** Bethlehem. **remarks:** Received 7/15/76 through Plant Introduction Office, Pretoria. Perennial. Wild. Seed.

PI 516207 **donor id:** S-69-7. **origin:** South Africa. **other id:** L90. **locality:** Johannesburg. **remarks:** Received 7/15/76 through Plant Introduction Office, Pretoria. Perennial. Wild. Seed.

PI 516208 **donor id:** S-69-8. **origin:** South Africa. **other id:** L91. **locality:** Standerton. **remarks:** Received 7/15/76 through Plant Introduction Office, Pretoria. Perennial. Wild. Seed.

PI 516209. *Trifolium aintabense* Boiss. & Hausskn. 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 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

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 516210 donor id: S-133-1. origin: United States. collected:  
April 25, 1960. collector: B. Crampton. locality: Yolo  
County, California. remarks: Received 6/1/66. received  
as: *T. columbinum*. Annual. Wild. Seed.

PI 516211 donor id: S-133-2. origin: United States. collected:  
April 20, 1966. collector: B. Crampton. other id: Herb.  
No 7637. locality: Yolo County, California. remarks:  
Received 6/10/66. received as: *T. columbinum*. Annual.  
Wild. Seed.

PI 516212 donor id: S-139-1. origin: United States. collected:  
April 23, 1964. collector: B. Crampton. locality:  
Sacramento County, California. remarks: Received 6/1/66.  
Annual. Wild. Seed.

PI 516213 donor id: S-139-2. origin: United States. collected:  
April 20, 1966. collector: B. Crampton. other id: Herb.  
No. 7659. locality: Yolo County, California. remarks:  
Received 6/10/66. Annual. Wild. Seed.

PI 516214 to 516217. *Trifolium alexandrinum* L. FABACEAE Berseem  
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 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 516215 donor id: S-3-41. origin: UNKNOWN. remarks: Received  
9/10/75 from R.R. Smith, USDA-ARS, Madison, Wisconsin.  
Referred to as Fala clover. 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 516217 **donor id:** S-3-45. **origin:** UNKNOWN. **remarks:** Received 4/22/80 from Federal Republic of Germany. Annual. Wild. Seed.

PI 516218 to 516220. *Trifolium alpestre* L. FABACEAE Zig-zag 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 516218 **donor id:** S-71-17. **origin:** Sweden. **remarks:** Received 2/7/86 from A. Merker. Perennial. Wild. Seed.

PI 516219 **donor id:** S-71-18. **origin:** Denmark. **remarks:** Received 2/7/86 from A. Merker. Perennial. Wild. Seed.

PI 516220 **donor id:** S-71-19. **origin:** United Kingdom. **other id:** 0011097. **remarks:** Received 6/27/86 from Royal Botanic Garden, Kew. Perennial. Wild. Seed.

PI 516221. *Trifolium alpinum* 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-106-2. **origin:** Italy. **origin institute:** Orto Botanico Instituto Technico. **locality:** Udine. **remarks:** Received 7/1/71 from Agriculture Canada. Perennial. Wild. Seed.

PI 516222. *Trifolium amabile* Kunth 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-5-5. **origin:** Ecuador. **collector:** W. Templeton. **other id:** 79-S-5-5. **remarks:** Received 6/10/76. Perennial. Wild. Seed.

PI 516223. *Trifolium amabile* var. *longifolium* Hemsley 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 516223-continued

donor id: S-166-1. origin: Mexico. collector: W. Templeton. remarks: Received 1968. received as: T. gonocarpum. Perennial. Wild. Seed.

PI 516224 to 516226. *Trifolium ambiguum* M. Bieb. FABACEAE Kura 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 516224 donor id: S-4-1. origin: UNKNOWN. other id: FC 33109. remarks: Walker Tract, harvested 1955. Received 1956 from E.A. Hollowell, USDA. Perennial. Cultivated. Seed.

PI 516225 donor id: S-4-74. origin: Australia. cultivar: PRAIRIE. other id: Az 860. remarks: Hexaploid type. Received 7/22/85 from M. Forde, DSIR, New Zealand. Perennial. Cultivar. Seed.

PI 516226 donor id: S-4-75. origin: Australia. cultivar: FOREST. other id: Az 859. remarks: Diploid type. Received 7/22/85 from M. Forde, DSIR, New Zealand. Perennial. Cultivar. Seed.

PI 516227. *Trifolium angulatum* Waldst. & Kit. 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-230-1. origin: France. other id: Az 1396. remarks: Received 7/22/85 from DSIR, New Zealand. Perennial. Wild. Seed.

PI 516228. *Trifolium angustifolium* 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-1-10. origin: Kenya. origin institute: FAO, Kitale. origin institute id: 5588. remarks: Received April 1985, from K.M. Ibrahim. Annual. Seed.

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 **donor id:** S-52-9. **origin:** UNKNOWN. **other id:** 80/75.  
**remarks:** Received 4/22/80 from Federal Republic of Germany. **received as:** T. *xerocephalum*. Annual. Wild. Seed.

PI 516232 **donor id:** S-162-1. **origin:** Israel. **other id:** CPI 15651.  
**remarks:** Received 8/17/70 from A.J. Pritchard, CSIRO, Australia. Annual. Seed.

PI 516233 **donor id:** S-162-3. **origin:** United Kingdom. **other id:** 0025845. **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 **donor id:** S-6-7. **origin:** United States. **collector:** R.R. Smith. **locality:** Along I-94, Wisconsin. **remarks:** Naturalized. Received 3/15/76. Annual. Seed.



PI 516234 to 516236-continued

PI 516235 donor id: S-6-12. origin: Kenya. origin institute: FAO, Kitale. origin institute id: 5596. remarks: Received 4/85, from K.M. Ibrahim. Annual. Seed.

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

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

PI 516238 donor id: S-123-2. origin: Italy. origin institute: Orto Botanico Istituto Technico. local name: Udine. remarks: Received 1/21/71 from Agriculture Canada. Annual. Wild. Seed.

PI 516239 donor id: S-123-3. origin: Canada. collector: J.M. Gillett. remarks: Received 1/4/80. Annual. Wild. Seed.

PI 516240 donor id: S-123-4. origin: United Kingdom. other id: 338-07. remarks: Received 5/7/80 from Royal Botanic Garden, Kew. Annual. Wild. 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

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-74-4. origin: Ethiopia. other id: 1586. remarks: Received 12/14/79 from M. Thulin. Annual. Wild. Seed.

PI 516243 to 516245. *Trifolium barbigerum* Torrey 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 516243 to 516245-continued

PI 516243 donor id: S-138-1. origin: United States. collected: April 27, 1962. collector: B. Crampton. locality: Solano County, California. remarks: Received 6/1/66. Annual. Wild. Seed.

PI 516244 donor id: S-138-2. origin: United States. collected: April 19, 1966. collector: B. Crampton. other id: Herb. No. 7658. locality: Solano County, California. remarks: Received 6/10/66. Annual. Wild. Seed.

PI 516245 donor id: S-138-3. origin: United States. other id: Herb. No. 7636. other id: 79-S-138-3. remarks: Received from B. Crampton. University of California, Davis. Annual. Seed.

PI 516246. *Trifolium barbigerum* var. *andrewsii* A. Gray 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-144-1. origin: United States. collected: 1966. collector: B. Crampton. locality: Amador County, California. remarks: Received 6/10/66. received as: *T. grayi*. Annual. Wild. Seed.

PI 516247. *Trifolium batmanicum* Katzn. 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-172-1. origin: Turkey. collector: J.B. Gillett. other id: 21-S-172-1. other id: Gillett 14955. other id: NYT 1068. remarks: Received 2/6/73 from J. Katznelson, Israel. Annual. Wild. Seed.

PI 516248 to 516253. *Trifolium bifidum* A. Gray 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 516248 donor id: S-137-1. origin: United States. collected: May 1962. collector: B. Crampton. other id: T.O.2783. locality: Solano County, California. remarks: Received 6/1/66. Annual. Wild. Seed.

PI 516248 to 516253-continued

- PI 516249 donor id: S-137-2. origin: United States. collected: April 20, 1966. collector: B. Crampton. other id: Herb. No. 7636. locality: Yolo County, California. remarks: Received 6/10/66. Annual. Wild. Seed.
- PI 516250 donor id: S-137-3. origin: United States. collected: May 05, 1966. collector: N.L. Taylor. locality: Hopland, Mendocino County, California. remarks: Received 5/5/66. Annual. Wild. Seed.
- PI 516251 donor id: S-137-4. origin: United States. collected: May 05, 1966. collector: N.L. Taylor. locality: West 3.3km of Winters, Yolo County, California. Annual. Wild. Seed.
- PI 516252 donor id: S-137-5. origin: United States. collected: May 14, 1966. collector: N.L. Taylor. locality: California Hwy 140 between Yosemite and Merced. Annual. Wild. Seed.
- PI 516253 donor id: S-137-7. origin: United States. collected: April 20, 1966. collector: B. Crampton. other id: Herb. No. 7636. locality: West of Winters, Yolo county, California. remarks: Received 9/8/76 from J.M. Gillett, Canada. Annual. Wild. Seed.

PI 516254. *Trifolium bilineatum* 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-226-1. origin: Ethiopia. origin institute: ILCA, Addis Ababa. origin institute id: 7626. remarks: Received 2/22/84. Annual. Wild. Seed.

PI 516255. *Trifolium billardieri* Sprengel 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-165-1. origin: Denmark. origin institute: Botanic Garden, Copenhagen. other id: CPI 22740. remarks: Received 8/17/70 from A.J. Pritchard, CSIRO. Introduced to Australia as *T. comosum*. Annual. Wild. Seed.

PI 516256. *Trifolium blancheanum* Boiss. 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-233-1. **origin:** Israel. **origin institute:** Hebrew University, Jerusalem. **other id:** 70035.  
**locality:** Sharon Plain, Caesarea. **remarks:** Received 11/25/85 from C. Heyn. Annual. Wild. Seed.

PI 516257. *Trifolium bocconeii* Savi 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-75-5. **origin:** Portugal. **other id:** 81/79.  
**remarks:** Received 4/20/80 from Federal Republic of Germany. Annual. Wild. Seed.

PI 516258. *Trifolium bocconeii* var. *tenuifolium* (Ten.) Griseb. 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-222-1. **origin:** United Kingdom. **other id:** 363-13. **remarks:** Received 5/7/80 from Royal Botanic Garden, Kew. **received as:** *T. tenuifolium*. Annual. Wild. Seed.

PI 516259 to 516261. *Trifolium bullatum* Boiss. & Hausskn. 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 516259 **donor id:** S-173-2. **origin:** Israel. **collector:** A. Danin. **other id:** 10043. **locality:** Hakerum, Judean Mountains, Givat Beif. **remarks:** Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Perennial. Wild. Seed.

PI 516260 **donor id:** S-173-3. **origin:** Israel. **collector:** H. Parag & A. Danin. **other id:** 40355. **locality:** Mt. Carmel, Haifa. **remarks:** Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Perennial. Wild. Seed.

PI 516259 to 516261-continued

PI 516261 **donor id:** S-173-4. **origin:** Israel. **collector:** A. Danin.  
**other id:** 10102. **locality:** Negev mountains, Yeruham.  
**remarks:** Received 11/25/85 from C. Heyn, Hebrew  
University, Jerusalem. Perennial. Wild. Seed.

PI 516262 to 516266. *Trifolium burchellianum* Ser. 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 516262 **donor id:** S-103-4. **origin:** South Africa. **other id:** L92.  
**locality:** Langebosch. **remarks:** Received 7/15/76 from  
Plant Introduction office, Petoria. Perennial. Wild.  
Seed.

PI 516263 **donor id:** S-103-6. **origin:** South Africa. **other id:** L95.  
**locality:** Utrecht. **remarks:** Received 7/15/76 from Plant  
Introduction office, Petoria. Perennial. Wild. Seed.

PI 516264 **donor id:** S-103-7. **origin:** South Africa. **other id:** L96.  
**locality:** Springfoutein. **remarks:** Received 7/15/76 from  
Plant Introduction office, Petoria. Perennial. Wild.  
Seed.

PI 516265 **donor id:** S-103-8. **origin:** South Africa. **other id:** L99.  
**locality:** Brayten. **remarks:** Received 7/15/76 from Plant  
Introduction office, Petoria. Perennial. Wild. Seed.

PI 516266 **donor id:** S-103-9. **origin:** Ethiopia. **other id:** 1658.  
**remarks:** Received 12/14/79 from M. Thulin. Perennial.  
Wild. Seed.

PI 516267 to 516270. *Trifolium campestre* Schreber FABACEAE Large hop  
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 516267 **donor id:** S-8-32. **origin:** Kenya. **origin institute:** FAO,  
Kitale. **origin institute id:** 6991. **remarks:** Received  
4/85, from K.M. Ibrahim. Annual. Wild. Seed.

PI 516268 **donor id:** S-8-33. **origin:** Kenya. **origin institute:** FAO,  
Kitale. **origin institute id:** 5623. **remarks:** Received  
4/85, from K.M. Ibrahim. Annual. Wild. Seed.

PI 516267 to 516270-continued

PI 516269 donor id: S-8-34. origin: Kenya. origin institute: FAO, Kitale. origin institute id: 5622. remarks: Received 4/85, from K.M. Ibrahim. Annual. Wild. Seed.

PI 516270 donor id: S-8-35. origin: Kenya. origin institute: FAO, Kitale. origin institute id: 5618. remarks: Received 4/85, from K.M. Ibrahim. Annual. Wild. Seed.

PI 516271 to 516273. *Trifolium carolinianum* Michaux 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 516271 donor id: S-10-11. origin: UNKNOWN. collected: June 08, 1960. other id: FC 25060. remarks: Donated 6/13/34 to USDA by H.H. Reed, McNeill, Mississippi. Annual. Seed.

PI 516272 donor id: S-10-2. origin: United States. collected: 1941. collector: G. Ritchey. other id: FC 13266. locality: Roadsides near Gainesville, Florida. remarks: Received in 1956 from USDA. Annual. Wild. Seed.

PI 516273 donor id: S-10-6. origin: United States. collected: April 12, 1983. collector: N.L. Taylor. locality: Gainesville, Florida. remarks: Received 4/12/83. Annual. Seed.

PI 516274 to 516275. *Trifolium cernuum* Brot. 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 516274 donor id: S-11-1. origin: Australia. origin institute: F.H. Brunning Pty., Ltd., Melbourne. other id: FC 24894. remarks: Received 1956 from E.A. Hollowell, USDA. Annual. Cultivated. Seed.

PI 516275 donor id: S-11-2. origin: UNKNOWN. received as: T. cernuum. Annual. Seed.

PI 516276. *Trifolium caucasicum* Tausch 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 516276-continued

**donor id:** S-150-2. **origin:** Soviet Union. **origin institute:** VIR, 44 Herzen Street, Leningrad. **other id:** G19172. **source:** VIR, Leningrad. **remarks:** Received 3/5/74 from the Northeastern Regional Plant Introduction Sta., Geneva, NY via Ottawa Research Station, Agr. Canada. Perennial. Seed.

PI 516277 to 516279. *Trifolium cherleri* 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 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 516278 **donor id:** S-12-9. **origin:** Turkey. **collector:** D. Cornelius. **other id:** 21-S-12-9. Annual. Seed.

PI 516279 **donor id:** S-12-10. **origin:** Israel. **collector:** C. Donald, J.F. Miles. **other id:** CPI 14926. **locality:** Shallow coarse red sand above sandstone, Ben Yamina, Palestine. **remarks:** Received 3/15/76 from R.R. Smith. Annual. Wild. Seed.

PI 516280. *Trifolium chilense* Hook. & Arn. 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-94-6. **origin:** UNKNOWN. **cultivar:** CHILLAN. **collector:** E.T. Bailey. **other id:** CPI 25896. **other id:** W 1484. **locality:** South America. **remarks:** Received 8/15/85 through CSIRO, Australia. Designated T. repens when collected. Annual. Cultivar. Seed.

PI 516281 to 516282. *Trifolium ciliolatum* Benth. 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 516281 **donor id:** S-136-1. **origin:** United States. **collected:** May 1961. **collector:** B. Crampton. **locality:** Colusa County, California. **remarks:** Received 6/1/66. Annual. Wild. Seed.

PI 516281 to 516282-continued

PI 516282 donor id: S-136-2. origin: United States. collected: April 20, 1966. collector: B. Crampton. other id: Herb No 7635. locality: Yolo County, California. remarks: Received 6/10/66. Annual. Wild. Seed.

PI 516283 to 516287. *Trifolium clusii* Godron & Gren. 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 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 516284 donor id: S-201-2. origin: Israel. collected: May 22, 1981. collector: A. Danin. other id: 10159. locality: Lower Galilee, Allone, Abba. remarks: Received 12/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

PI 516285 donor id: S-201-3. origin: Israel. collected: July 25, 1983. collector: A. Liston. other id: 70420. locality: Judean Mountains, Givon Junction. remarks: Received 12/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

PI 516286 donor id: S-201-4. origin: Israel. collected: June 22, 1981. other id: 40233. locality: Golan Betiha. remarks: Received 12/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

PI 516287 donor id: S-201-5. origin: Israel. collected: June 13, 1983. collector: A. Liston. other id: 70244. locality: Shefela: Latrun. remarks: Received 12/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

PI 516288. *Trifolium clypeatum* 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-57-4. origin: Israel. remarks: Received 5/20/60 from Plant Introduction Office, Bet Dagan. Annual. Seed.



PI 516289. *Trifolium constantinopolitanum* Ser. 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-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

**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-157-2. **origin:** Ethiopia. **origin institute:** ILCA, Addis Ababa. **origin institute id:** 8206. **remarks:** Received 2/22/84. Perennial. Wild. Seed.

PI 516291. *Trifolium cyathiferum* Lindley 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-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

**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-225-1. **origin:** United Kingdom. **other id:** 316-02. **other id:** 106-16. **remarks:** Received 5/2/80 from Royal Botanic Garden, Kew. Annual. Wild. Seed.

PI 516293. *Trifolium decorum* Chiov. 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 516293-continued

donor id: S-227-1. origin: Ethiopia. origin institute:  
ILCA, Addis Ababa. origin institute id: 6304. other id:  
316-02. other id: 106-16. remarks: Received 2/22/84.  
Annual. Wild. Seed.

PI 516294 to 516297. *Trifolium depauperatum* Desv. 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 516294 donor id: S-141-1. origin: United States. collected:  
April 24, 1961. collector: B. Crampton. locality:  
Sacramento County, California. remarks: Received 6/1/66.  
Annual. Wild. Seed.

PI 516295 donor id: S-141-2. origin: United States. collected:  
April 14, 1966. collector: B. Crampton. other id: Herb.  
No. 7648. locality: Placer County, California. remarks:  
Received 6/10/66. Annual. Wild. Seed.

PI 516296 donor id: S-141-3. origin: United States. collected:  
May 05, 1966. collector: N.L. Taylor. locality:  
Hopland, California. Annual. Wild. Seed.

PI 516297 donor id: S-147-1. origin: United States. collected:  
April 28, 1966. collector: B. Crampton. other id: Herb.  
No 7681. locality: Yolo County, California. remarks:  
Received 6/10/66. received as: *T. diversifolium*..  
Annual. Wild. Seed.

PI 516298 to 516299. *Trifolium dichotomum* Hook. & Arn. 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 516298 donor id: S-134-1. origin: United States. collected:  
May 08, 1962. collector: B. Crampton. locality: Hopland  
Field Station, California. remarks: Received 6/1/66.  
Annual. Wild. Seed.

PI 516299 donor id: S-134-2. origin: United States. collected:  
May 10, 1966. collector: B. Crampton. other id: Herb.  
No. 7720. locality: Mendocino County, California.  
remarks: Received 6/10/66. Annual. Wild. Seed.

PI 516300. *Trifolium diffusum* Ehrh. 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-46-4N. **origin:** United States. **other id:** 41-S-46-4N. **remarks:** Tetraploid developed by N. L. Taylor from PI 204517. Annual. Seed.

PI 516301 to 516303. *Trifolium dubium* Sibth. FABACEAE Small hop 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 516301 **donor id:** S-13-1. **origin:** New Zealand. **other id:** FC 24630. **other id:** 39-S-13-1. **remarks:** Introduced by Transcontinental Seed, Inc., New York, NY. Referred to as Suckling (Hop) clover. Annual. Cultivated. Seed.

PI 516302 **donor id:** S-32-1. **origin:** United States. **origin institute:** Keller Seed Co., Shawnee, Oklahoma. **origin institute id:** Lot. No. 691. **other id:** FC 32228. **remarks:** Received 1956 from E.A. Hollowell, USDA. **received as:** *T. procumbens*. Annual. Cultivated. Seed.

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

**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-89-4. **origin:** Israel. **remarks:** Received 4/22/80 from Federal Republic of Germany. **received as:** *T. carmeli*. Annual. Wild. Seed.

PI 516305. *Trifolium eriosphaerum* Boiss. 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 516305-continued

**donor id:** S-132-3. **origin:** UNKNOWN. **other id:** Canada 14956. **remarks:** Received 9/8/76 from J.M. Gillett, Canada. Annual. Seed.

PI 516306 to 516308. *Trifolium fragiferum* L. FABACEAE Strawberry 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 516306 **donor id:** S-16-49. **origin:** Kenya. **origin institute:** FAO, Kitale. **origin institute id:** 5667. **remarks:** Received 4/85, from K.M. Ibrahim. Perennial. Seed.

PI 516307 **donor id:** S-16-52. **origin:** Sweden. **locality:** Hylkan. **remarks:** Received 2/8/86 from A. Merker. Perennial. Seed.

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

**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 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 516311 **donor id:** S-143-3. **origin:** United States. **locality:** Fairfield, California. **remarks:** Received 5/5/66 from 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 516313 **donor id:** S-146-2. **origin:** United States. **locality:** Fairfield, California. **remarks:** Received 5/6/66 from University of California, Davis. **received as:** T. flavulum. Annual. Wild. Seed.

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

**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-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

**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-17-1. **origin:** United States. **other id:** FC 23750. **remarks:** Received 1956 from E.A. Hollowell, USDA. Originally from South Miss. Branch Exp. Sta., Poplarville. Annual. Seed.

PI 516317 to 516319. *Trifolium gracilentum* Torrey & A. Gray 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 516317 **donor id:** S-135-1. **origin:** United States. **collected:** April 16, 1961. **collector:** B. Crampton.. **other id:** Herb. No 6364. **locality:** Yolo County, California. **remarks:** Received 6/1/66. Annual. Wild. Seed.

PI 516318 **donor id:** S-135-2. **origin:** United States. **collected:** April 28, 1966. **collector:** B. Crampton. **other id:** Herb. No 7653. **locality:** Yolo County, California. **remarks:** Received 6/10/66. Annual. Wild. Seed.

PI 516317 to 516319-continued

PI 516319 donor id: S-135-3. origin: United States. collected: May 01, 1966. collector: N.L. Taylor. locality: Davis, California. Annual. Wild. Seed.

PI 516320. *Trifolium gracilentum* var. *palmeri* (S. Watson) McDermott  
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-205-1. origin: United States. origin institute id: Plant no. 739. remarks: Received 12/19/73 From J.M. Gillett, Agriculture Canada, Ottawa. received as: *T. palmeri*. Annual. Wild. Seed.

PI 516321 to 516323. *Trifolium grandiflorum* Schreber 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 516321 donor id: S-128-5. origin: Kenya. origin institute: FAO, Kitale. origin institute id: 5720. remarks: Received 4/85, from K.M. Abraham. received as: *T. speciosum*. Annual. Seed.

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 516323 donor id: S-220-3. origin: United Kingdom. other id: 0010861. remarks: Received 6/27/86 from Royal Botanic Garden, Kew. Annual. Seed.

PI 516324. *Trifolium haydenii* Porter 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-204-1. origin: United States. other id: 01-S-204-1. other id: 33012. source: Canada. remarks: Received December 19, 1973. Perennial. Seed.

PI 516325 to 516326. *Trifolium heldreichianum* (Gibelli & Belli)  
Hausskn. 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 516325 donor id: S-148-1. origin: Sweden. locality: Stockholm.  
remarks: Received 8/22/66 from Ottawa Research Station, Canada. Perennial. Seed.

PI 516326 donor id: S-148-2. origin: Sweden. other id:  
59-S-148-2. other id: 3594. remarks: Received May 1, 1969 from Ottawa Research Station, Canada. Perennial. Seed.

PI 516327 to 516329. *Trifolium hirtum* All. FABACEAE Rose 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 516327 donor id: S-18-1. origin: United States. origin  
institute: F. Lagomarsino & Sons, Sacramento, California.  
origin institute id: Stock No. 1-3098. other id: FC  
24960. other id: 9-5-18-1. remarks: Received 1956 from  
E.A. Hollowell, USDA. Annual. Cultivated. Seed.

PI 516328 donor id: S-18-15. origin: Kenya. origin institute:  
FAO, Kitale. origin institute id: 23113. remarks:  
Received 4/85, from K.M. Ibrahim. Annual. Seed.

PI 516329 donor id: S-18-16. origin: Kenya. origin institute:  
FAO, Kitale. origin institute id: 23108. remarks:  
Received 4/85, from K.M. Ibrahim. Annual. Seed.

PI 516330 to 516338. *Trifolium hybridum* L. FABACEAE Alsike 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 516330 donor id: S-19-1. origin: United States. origin  
institute: Hoyt Seed Co., Fostoria, Ohio. origin  
institute id: Lot G. other id: 19-S-19-1. other id: FC  
32587. remarks: Received 1956 from E.A. Hollowell, USDA.  
Perennial. Cultivated. Seed.

PI 516331 donor id: S-19-20. origin: Romania. remarks: Received  
12/5/86 from A. Szabo. Perennial. Seed.

PI 516330 to 516338-continued

- PI 516332 donor id: S-19-21. origin: New Zealand. other id: Ab 214. remarks: Received 5/5/87 from E. Williams, Australia. Perennial. Seed.
- PI 516333 donor id: S-19-22. 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 donor id: S-19-24. origin: Germany, Federal Rep of. other id: Ab 259. remarks: Received 5/5/87 from E. Williams, Australia. Perennial. Seed.
- PI 516336 donor id: S-19-25. origin: Australia. other id: Ab 57. remarks: Received 5/5/87 from E. Williams, Australia. Perennial. Seed.
- PI 516337 donor id: S-19-26. origin: Finland. other id: Ab 221. remarks: Received 5/5/87 from E. Williams, Australia. Perennial. Seed.
- PI 516338 donor id: S-19-27. 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

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-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

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: 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

**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-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

**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:** 31-S-22-12. **origin:** UNKNOWN. **remarks:** Derived from FC 32190. Tetraploid (4n) type induced by N.L. Taylor from PI 292162. Annual. Seed.

PI 516343. *Trifolium longipes* Nutt. 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-96-2. **origin:** United States. **remarks:** Received 11/5/63 from J.W. Hamilton, University of Wyoming. Perennial. Wild. Seed.

PI 516344. *Trifolium lucanicum* Gasp. ex Guss. 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-210-1. **origin:** UNKNOWN. **remarks:** Received 9/8/76 from J.M. Gillett, Canada. Annual. Seed.

PI 516345. *Trifolium macraei* Hook. & Arn. 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-192-1. **origin:** United States. **remarks:** Received 12/19/73 from J.M. Gillett, Canada. Annual. Seed.

PI 516346. *Trifolium mattirolianum* Chiov. 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-116-3. **origin:** Ethiopia. **origin institute:** ILCA, Addis Ababa. **origin institute id:** 6293. **remarks:** Received 2/22/84. Annual. Wild. Seed.

PI 516347 to 516356. *Trifolium medium* L. FABACEAE Zig-zag 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 516347 **donor id:** S-25-5. **origin:** United States. **other id:** 39-S-25-5. **locality:** Jericho, Vermont. **remarks:** Received 11/4/74 from E.A. Hollowell, USDA. Perennial. Wild. Seed.

PI 516348 **donor id:** S-25-21. **origin:** German Democratic Repub. **other id:** 179/75. **remarks:** Received 4/22/80. Perennial. Seed.

PI 516349 **donor id:** S-25-22. **origin:** United States. **remarks:** Developed by N.L. Taylor. Perennial. Breeding Material. Seed.

PI 516350 **donor id:** S-25-27. **origin:** New Zealand. **remarks:** Received 6/6/83 from A.V. Stewart, Pyne, Gould, Gurness. Perennial. Wild. Seed.

PI 516351 **donor id:** S-25-31. **origin:** Sweden. **collected:** September 20, 1985. **collector:** N.L. Taylor. **locality:** Orefors. Perennial. Seed.

PI 516352 **donor id:** S-25-33. **origin:** Sweden. **locality:** Ask. **remarks:** Received 2/7/86 from A. Merker, Svalof. Perennial. Seed.

PI 516353 **donor id:** S-25-34. **origin:** Sweden. **locality:** Ostersund. **latitude:** 65 deg. N. **remarks:** Received 2/7/86 from A. Merker, Svalof. Perennial. Seed.

PI 516354 **donor id:** S-25-35. **origin:** Sweden. **locality:** Algult. **remarks:** Received 2/7/86 from A. Merker, Svalof. Perennial. Seed.

PI 516355 **donor id:** S-25-36. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.

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

**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-27-6. **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

**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-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

**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-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

**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 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

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 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 donor id: S-145-2. origin: United States. collected: May 06, 1966. collector: N.L. Taylor. locality: Fairfield, California. Annual. Wild. Seed.

PI 516368. *Trifolium miegeanum* Maire 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-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

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 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, Uppsala, 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

**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-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

**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-81-3. **origin:** Israel. **remarks:** Received 5/20/60 from Plant Introduction Office, Bet Dagan. Annual. Wild. Seed.

PI 516376. *Trifolium pallescens* Schreber 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-224-1. **origin:** United Kingdom. **other id:** 31-05. **other id:** 20-13. **remarks:** Received 5/7/80 from Royal Botanic Garden, Kew. Annual. Wild. Seed.

PI 516377 to 516383. *Trifolium pannonicum* Jacq. 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 516377 **donor id:** S-30-8. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.

PI 516378 **donor id:** S-30-9. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.

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

PI 516380 **donor id:** S-30-11. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.

PI 516381 **donor id:** S-30-12. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.

PI 516377 to 516383-continued

PI 516382 **donor id:** S-30-13. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.

PI 516383 **donor id:** S-30-14. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Perennial. Wild. Seed.

PI 516384 to 516385. *Trifolium parryi* A. Gray. 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 516384 **donor id:** S-111-2. **origin:** United States. **locality:** Subalpine slope, Red Mountain Pass, Colorado. **elevation:** 3763m. **remarks:** Received 1/21/71 from Agriculture Canada. Perennial. Wild. Seed.

PI 516385 **donor id:** S-111-3. **origin:** United States. **collected:** August 21, 1983. **collector:** M. Ellsbury. **locality:** Loveland Pass, Colorado. **elevation:** 3330m. **remarks:** Received 10/11/84. Perennial. Wild. Seed.

PI 516386. *Trifolium patens* Schreber 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-67-2. **origin:** France. **other id:** 1893-8648. **locality:** Rouen. **remarks:** Received 2/17/64 from Agriculture Canada. Annual. Wild. Seed.

PI 516387. *Trifolium patulum* Tausch 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-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

**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 516388 to 516389-continued

PI 516388 donor id: S-82-4. origin: United States. collected: April 19, 1966. collector: B. Crampton. other id: Herb. No 7632. locality: Solano County, California. remarks: Received 6/10/66. received as: *T. stenophyllum*. Annual. Wild. Seed.

PI 516389 donor id: S-82-5. origin: United States. collected: May 06, 1966. collector: N.L. Taylor. locality: Fairfield, California. received as: *T. stenophyllum*. Annual. Wild. Seed.

PI 516390. *Trifolium pichisermollii* J. B. Gillett 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-228-1. origin: Ethiopia. origin institute: ILCA, Addis Ababa. origin institute id: 6294. remarks: Received 2/22/84. Annual. Wild. Seed.

PI 516391. *Trifolium pinetorum* E. Greene 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-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

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-231-1. origin: Israel. other id: AZ1567. remarks: Received 7/22/85 from DSIR, New Zealand. Annual. Wild. Seed.

PI 516393 to 516395. *Trifolium polymorphum* Poiret 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 516393 to 516395-continued

PI 516393 donor id: S-31-4. origin: Argentina. collected: 1970.  
collector: M. Templeton. Perennial. Wild. Seed.

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 516395 donor id: S-100-4. origin: Chile. collector: E. Rupert,  
R.P. Murphy. remarks: Received 1977. received as: T.  
megalanthum. Perennial. Wild. Seed.

PI 516396. *Trifolium polystachyum* 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-95-3. origin: Ethiopia. origin institute:  
ILCA, Addis Ababa. origin institute id: 6298. remarks:  
Received 2/22/84. Perennial. Wild. Seed.

PI 516397. *Trifolium pratense* L. FABACEAE Red 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-207-2. origin: Germany, Federal Rep of.  
other id: 09-S-207-2. other id: 2-59-118 (240).  
Perennial. Seed.

PI 516398. *Trifolium purpureum* Lois. 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-76-1. origin: Israel. other id: 09-S-76-1.  
remarks: Received 1959 from J. Schwer, USDA Pasture Lab.,  
State College, PA. Annual. Wild. Seed.

PI 516399. *Trifolium quartinianum* 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.

PI 516399-continued

**donor id:** S-167-2. **origin:** Ethiopia. **origin institute:** ILCA, Addis Ababa. **origin institute id:** 6301. **remarks:** Received 9/12/84. Annual. Wild. Seed.

PI 516400 to 516402. *Trifolium reflexum* 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 516400 **donor id:** S-34-1. **origin:** United States. **other id:** FC 13264. **remarks:** Received 1956 from E.A. Hollowell, USDA. Originally from J.F. Combs, County Agent, Beaumont, Texas. Annual. Seed.

PI 516401 **donor id:** S-34-5. **origin:** United States. **collected:** 1976. **collector:** N.L. Taylor. **other id:** 69-S-34-5. **locality:** Mammoth Cave, Kentucky. Annual. Wild. Seed.

PI 516402 **donor id:** S-34-7. **origin:** United States. **collected:** 1978. **collector:** N.L. Taylor. **locality:** Hart County, Kentucky. Annual. Wild. Seed.

PI 516403 to 516418. *Trifolium repens* L. FABACEAE White 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 516403 **donor id:** S-35-14. **origin:** Pakistan. **other id:** 26990. **locality:** Balakot, West Pakistan. **remarks:** Received 3/23/64 from Northeastern Regional P.I. Station, Geneva, New York. Perennial. Seed.

PI 516404 **donor id:** S-35-15. **origin:** Kenya. **origin institute:** FAO, Kitale. **origin institute id:** 15405. **remarks:** Received 4/85, from K.M. Ibrahim. Perennial. Seed.

PI 516405 **donor id:** S-35-16. **origin:** Kenya. **origin institute:** FAO, Kitale. **origin institute id:** 15729. **remarks:** Received 4/85, from K.M. Abraham. Perennial. Seed.

PI 516406 **donor id:** S-35-17. **origin:** Kenya. **origin institute:** FAO, Kitale. **origin institute id:** 22622. **remarks:** Received 4/85, from K.M. Abraham. Perennial. Seed.

PI 516407 **donor id:** S-35-18. **origin:** Kenya. **origin institute:** FAO, Kitale. **origin institute id:** 15059. **remarks:** Received 4/85, from K.M. Abraham. Perennial. Seed.

PI 516403 to 516418-continued

- PI 516408 donor id: S-35-19. origin: Kenya. origin institute: FAO, Kitale. origin institute id: 15339. remarks: Received 4/85, from K.M. Abraham. Perennial. Seed.
- PI 516409 donor id: S-35-20. origin: Kenya. origin institute: FAO, Kitale. origin institute id: 22863. remarks: Received 4/85, from K.M. Abraham. Perennial. Seed.
- PI 516410 donor id: S-35-25. origin: Romania. remarks: Received 5/12/86 from A. Szabo. Perennial. Seed.
- PI 516411 donor id: S-35-26. origin: Romania. remarks: Received 5/12/86 from A. Szabo. Perennial. Seed.
- PI 516412 donor id: S-35-27. origin: New Zealand. remarks: Received 6/23/86 from J. Van Der Bosch, New Zealand. Leaf marking unusual. Perennial. Seed.
- PI 516413 donor id: S-35-28. origin: New Zealand. remarks: Received 6/23/86 from J. Van Der Bosch, New Zealand. Leaf marking unusual, feather mark. Perennial. Seed.
- PI 516414 donor id: S-35-29. origin: New Zealand. remarks: Received 6/23/86 from J. Van Der Bosch, New Zealand. Perennial. Seed.
- PI 516415 donor id: S-35-30. origin: New Zealand. other id: C-2014. remarks: Received 5/5/87 from E. Williams, Australia. . Ladino type. Perennial. Cultivated. Seed.
- PI 516416 donor id: S-35-31. origin: New Zealand. cultivar: HUIA. other id: C-5068. remarks: Received 5/5/87 from E. Williams, Australia. Annual. Cultivar. Seed.
- PI 516417 donor id: S-35-32. origin: Australia. other id: Brunnings 2176. remarks: Received 5/5/87 from E. Williams, Australia. Ladino type. Perennial. Cultivated. Seed.
- PI 516418 donor id: S-35-33. origin: New Zealand. remarks: Received 5/5/87 from E. Williams, Australia. Perennial. Cultivated. Seed.

PI 516419 to 516423. *Trifolium resupinatum* L. FABACEAE Persian 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 516419 to 516423-continued

- PI 516419 **donor id:** S-36-98. **origin:** Kenya. **origin institute:** FAO, Kitale. **origin institute id:** 3315. **remarks:** Received 4/85, from K.M. Ibrahim. Annual. Seed.
- PI 516420 **donor id:** S-36-99. **origin:** Kenya. **origin institute:** FAO, Kitale. **origin institute id:** 12292. **remarks:** Received 4/85, from K.M. Ibrahim. Annual. Seed.
- PI 516421 **donor id:** S-36-100. **origin:** Israel. **collected:** April 5, 1981. **other id:** 30040. **locality:** Hula Plain, Gonen. **remarks:** Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.
- PI 516422 **donor id:** S-36-101. **origin:** Israel. **collected:** April 13, 1981. **collector:** A. Danin. **other id:** 10387. **locality:** Judean Mountains, Moale, Hobamisha. **remarks:** Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.
- PI 516423 **donor id:** S-36-102. **origin:** Israel. **collected:** April 24, 1983. **collector:** A. Liston. **other id:** 70516. **locality:** Sharon Plain, Binyamina. **remarks:** Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

PI 516424. *Trifolium retusum* 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-208-1. **origin:** Australia. **other id:** CPI 23328. **remarks:** Received 9/8/76 from CSIRO, Australia via J.M. Gillett, Agr. Canada, Ottawa. Annual. Wild. Seed.

PI 516425. *Trifolium riograndense* Burkart 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-104-3. **origin:** Brazil. **remarks:** Received 5/10/84 from K.H. Quesenberry, Florida. Perennial. Wild. Seed.

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

**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 516433 **donor id:** S-105-2. **origin:** Sweden. **locality:** Karlshamn. **remarks:** Received 2/8/86 from A. Merker. Annual. Wild. Seed.

PI 516434 **donor id:** S-105-3. **origin:** Romania. **remarks:** Received 5/12/86 from A. Szabo. Annual. Wild. Seed.

PI 516435. *Trifolium squamosum* 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-24-10. **origin:** United Kingdom. **other id:** 0024893. **remarks:** Received 6/27/86 from Royal Botanic Garden, Kew. **received as:** *T. maritimum*. Annual. Wild. Seed.

PI 516436 to 516439. *Trifolium stellatum* L. FABACEAE Star 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 516436 **donor id:** S-43-11. **origin:** Israel. **collected:** October 13, 1983. **collector:** A. Liston. **other id:** 70249. **locality:** Shefelar, Latrun. **remarks:** Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

PI 516437 **donor id:** S-43-12. **origin:** Israel. **collected:** May 24, 1981. **collector:** R. Hanuni. **other id:** 40019. **locality:** Judean Mountains, Abu Ghosh. **remarks:** Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

PI 516438 **donor id:** S-43-13. **origin:** Israel. **collected:** June 27, 1983. **collector:** A. Liston. **other id:** 70400. **locality:** Esdraelon Plain, Mahalol. **remarks:** Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

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 conseratory. 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

**donor id:** S-102-5. **origin:** United Kingdom. **other id:** 0007548. **remarks:** Received 6/27/86 from Royal Botanic Garden, Kew. Annual. Wild. Seed.

PI 516446. *Trifolium tembense* 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-59-17. **origin:** Ethiopia. **other id:** 1568. **remarks:** Received 12/14/79 from M. Thulin. Annual. Wild. Seed.

PI 516447 to 516448. *Trifolium thalii* Villars 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 516447 **donor id:** S-124-1. **origin:** France. **origin institute:** Alpine Institute, Lautrie. **other id:** 1893-4890. **remarks:** Received 2/17/64 from Agriculture Canada. Perennial. Wild. Seed.

PI 516448 **donor id:** S-124-2. **origin:** Czechoslovakia. **other id:** 1893-68. **locality:** Pruhonice. **remarks:** Received 5/1/69 from Ottawa Research Station, Agriculture Canada. Perennial. Wild. Seed.

PI 516449 to 516451. *Trifolium tomentosum* L. FABACEAE Woolly 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 516449 **donor id:** S-48-16. **origin:** Israel. **origin institute:** Hebrew University, Jerusalem. **collected:** July 11, 1982. **collector:** A. Danin. **other id:** 11042. **locality:** Esdraelon Plain, Romat Hashafel. **remarks:** Received 11/25/85 from C. Heyn. Annual. Wild. Seed.

PI 516450 **donor id:** S-48-17. **origin:** Israel. **origin institute:** Hebrew University, Jerusalem. **collected:** June 6, 1983. **collector:** A. Liston. **other id:** 70213. **locality:** Philistean Plain, Ruhema. **remarks:** Received 11/25/85 from C. Heyn. Annual. Wild. Seed.



PI 516449 to 516451-continued

PI 516451 donor id: S-48-18. origin: Israel. origin institute: Hebrew University, Jerusalem. collected: June 6, 1981. collector: A. Danin. other id: 10292. locality: Shefla, Kefar-Rut. remarks: Received 11/25/85 from C. Heyn. Annual. Wild. Seed.

PI 516452. *Trifolium trichocephalum* M. Bieb. 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-155-3. origin: Soviet Union. other id: HE-150-71-79. locality: Cherkessia. remarks: Received 1/15/80 from D.R. Dewey, USDA-ARS, Logan, Utah. Perennial. Wild. Seed.

PI 516453 to 516458. *Trifolium tridentatum* Lindley 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 516453 donor id: S-55-1. origin: United States. other id: K-2330. remarks: Received 5/14/62 from W. Williams, University of California, Davis. Annual. Wild. Seed.

PI 516454 donor id: S-55-2. origin: United States. collected: 1961. collector: B. Crampton. locality: Yolo County, California. remarks: Received 6/1/66. Annual. Wild. Seed.

PI 516455 donor id: S-55-3. origin: United States. collected: April 06, 1966. collector: B. Crampton. other id: Herb. No 7638. locality: Yolo County, California. remarks: Received 6/1/66. Annual. Wild. Seed.

PI 516456 donor id: S-55-4. origin: United States. collected: May 06, 1966. collector: N.L. Taylor. locality: Fairfield, California. Annual. Wild. Seed.

PI 516457 donor id: S-55-5. origin: United States. collector: D. Cornelius. remarks: Received 5/5/66. Annual. Wild. Seed.

PI 516458 donor id: S-55-6. origin: Mexico. collected: October 09, 1981. collector: D.R. Dewey. locality: Mexico near CIMMYT, Tulucay. remarks: Received 12/1/81. Annual. Wild. Seed.

PI 516459. *Trifolium tumens* Steven ex M. Bieb. 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-154-3. **origin:** UNKNOWN. **other id:** 181/74.  
**remarks:** Received from Federal Republic of Germany.  
Perennial. Seed.

PI 516460 to 516461. *Trifolium uniflorum* 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 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

**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-60-3. **origin:** Ethiopia. **other id:** 1352.  
**remarks:** Received 12/14/79 from M. Thulin. Annual.  
Wild. Seed.

PI 516463 to 516466. *Trifolium variegatum* Nutt. FABACEAE Whitetip  
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 516463 **donor id:** S-49-1. **origin:** United States. **collected:** May 1951. **collector:** L.R. Green. **other id:** FC 24533.  
**locality:** San Joaquin Experimental Range, California.  
**remarks:** Received 1956 from E.A. Hollowell, USDA.  
Annual. Wild. Seed.

PI 516464 **donor id:** S-49-3. **origin:** United States. **collected:** April 26, 1966. **collector:** B. Crampton. **other id:** Herb. No 7671. **locality:** Solano County, California. **remarks:** Received 6/10/66. Annual. Wild. Seed.

PI 516463 to 516466-continued

PI 516465 donor id: S-49-4. origin: United States. collected: May 06, 1966. collector: B. Crampton. locality: Fairfield, California. remarks: Received 5/6/66. Annual. Wild. Seed.

PI 516466 donor id: S-49-5. origin: United States. collected: June 02, 1966. collector: N.L. Taylor. Annual. Wild. Seed.

PI 516467 to 516468. *Trifolium vavilovii* Eig 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 516467 donor id: S-156-2. origin: Israel. collected: July 17, 1967. other id: CPI 45094. locality: Tiberias. remarks: Received 3/15/76 from R.R. Smith via P. Gibson. Annual. Seed.

PI 516468 donor id: S-156-3. origin: Israel. collector: A. Liston. other id: 70372. locality: Esdraelon Plain, Givat Hamore. remarks: Received 11/25/85 from C. Heyn, Hebrew University, Jerusalem. Annual. Wild. Seed.

PI 516469 to 516470. *Trifolium vernum* Philippi 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 516469 donor id: S-101-1. origin: UNKNOWN. other id: CR-C-2 59-76. remarks: Received 12/15/62 from USDA-ARS. Annual. Seed.

PI 516470 donor id: S-101-2. origin: South America. collector: E.T. Bailey. collector id: B357. other id: CPI 25899. other id: No. 804 (Canada). remarks: Received 1/21/71 from Agriculture Canada. Annual. Seed.

PI 516471 to 516472. *Trifolium virginicum* Small 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 516471 donor id: S-213-1. origin: United States. remarks: Received 1978 from John Miller. Perennial. Wild. Seed.

PI 516471 to 516472-continued

PI 516472 **donor id:** S-213-2. **origin:** United States. **locality:** Burlington, Mineral County, West Virginia. **remarks:** Received 7/9/86 from J. Jacobs, U.S. Fish & Wildlife Service. Perennial. Wild. Seed.

PI 516473 to 516475. *Trifolium wormskioldii* Lehm. 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 516473 **donor id:** S-97-1. **origin:** United States. **other id:** A-13264-5/ S 1957. **other id:** CRC 2-61-58. **remarks:** Received 5/5/61 from E.A. Hollowell, USDA. **received as:** *T. fendleri*. Perennial. Seed.

PI 516474 **donor id:** S-97-2. **origin:** United States. **other id:** A-13004-46 S 1957. **other id:** CRC 2-61-57. **remarks:** Received 5/5/61 from E.A. Hollowell, USDA. **received as:** *T. fendleri*. Perennial. Seed.

PI 516475 **donor id:** S-140-1. **origin:** United States. **collected:** June 08, 1960. **collector:** B. Crampton. **locality:** Marin County, California. **remarks:** Received 6/1/66. **received as:** *T. fimbriatum*. Perennial. Wild. Seed.

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.

**donor id:** 9055585. **origin:** United States. **collector:** B.H. Slavin. **other id:** M1-204. **locality:** Bureau of Parks, Rochester. **remarks:** Small tree to 8m, hardy to zone 5. Flowers yellow (Feb.-Mar.), showy. Fruit abundant, scarlet, ripens August -Sept. Excellent survival rate, high vigor and growth habit. Potential conservation use in windbreaks, wildlife plantings, and landscaping. Cultivated. Seed.

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:** M1-3688. **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.

**donor id:** 9004438. **origin:** United States. **locality:** Bureau of Parks, Rochester. **remarks:** Small tree 15-25m, hardy to zone 6. Flowers in clusters, Aug.-Sept. Fruits elliptic-ovate Sept.-Oct. Selected for its excellent form, foliage density and resistance to disease. Potential conservation use in urban forestry, recreational plantings, and landscaping. Cultivated. Seed.

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

**donor id:** GR 395. **origin:** Morocco. **collected:** July 12, 1983. **locality:** Lightly grazed forest service area, Ain Rami, near Chechaouen. **elevation:** 560m. **remarks:** Pods with glandular hairs. Perennial. Wild. Seed.

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 516481 **donor id:** GR 590. **origin:** Morocco. **collected:** July 23, 1983. **locality:** Field plot, 15km E of Tounfite on Road 3422, 40km W of Midelt on Range Project "Arid". **elevation:** 1750m. **remarks:** Productive local population in plot trials. Cultivated. Seed.

PI 516482 **donor id:** GR 591. **origin:** Morocco. **collected:** July 23, 1983. **other id:** 199A. **locality:** Lower 'Arid' Range Project, 30km W of Midelt. **remarks:** Originally an old 'local' collection by the Derro Moroccan Project. Cultivated. Seed.

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 516483 **donor id:** GR 401. **origin:** Morocco. **collected:** July 12, 1983. **locality:** Roadside, 9km S of Chechaouen, junction of Road P 39 and P 28. **elevation:** 390m. Wild. Seed.

PI 516484 **donor id:** GR 444. **origin:** Morocco. **collected:** July 14, 1983. **locality:** 5km E of junction of Roads P 28 and P 39, S of Chechaouen. **elevation:** 460m. Wild. Seed.

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 516487 **donor id:** GR 416. **origin:** Morocco. **collected:** July 02, 1982. **locality:** 5km S of junction of Roads P 39 and P 28, 8km S of Chechaouen. **elevation:** 500m. 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 516488 **donor id:** GR 533. **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. Wild. Seed.

PI 516489 **donor id:** GR 540. **origin:** Morocco. **collected:** July 20, 1983. **locality:** Entrance to ski lift road at Mischliffen, SE of Azrou. **elevation:** 1900m. Wild. Seed.

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.

**donor id:** GR 577. **origin:** Morocco. **collected:** July 23, 1983. **locality:** Upper Plain de Arid, 24km S of Boumia, 15km N of Tounfite, W of Midelt. Wild. Seed.

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.

**donor id:** GR 470. **origin:** Morocco. **collected:** July 15, 1983. **locality:** Arid site, 9km S of Tizi-Ouzli on Road S 312, N of Aknoul. **elevation:** 1300m. **remarks:** Plants dessicated. Wild. Seed.

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 516492 **donor id:** GR 288. **origin:** Morocco. **collected:** July 06, 1983. **locality:** Roadside, 16km SE of Tiflet. **elevation:** 300m. Wild. Seed.

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 516494 **donor id:** GR 385. **origin:** Morocco. **collected:** July 11, 1983. **locality:** Roadside, 48km SW of Chechaouen, SE of Sebt on Road P 28. **elevation:** 125m. Wild. Seed.

PI 516495 **donor id:** GR 466. **origin:** Morocco. **collected:** July 15, 1983. **locality:** Arid site, 5km N of Aknoul on Road S 312. **elevation:** 1250m. **remarks:** Pods few. Three years of below average rainfall. 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 516502-continued

- 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, 24km from Azilal to Aid Mohammed, Azilal. elevation: 1640m. remarks: 600mm 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, 45km from Rabat to Casablanca, Rabat. elevation: 50m. remarks: 500mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516498 donor id: GR 293. origin: Morocco. collected: July 06, 1983. locality: 33km SE of Tiflet. elevation: 350m. remarks: Leaves pinnately compound. 500-550mm 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, 18km N of Aknoul. elevation: 1200m. remarks: Plants 10cm tall. Leaves pinnately compound. Flowers absent. Pods abundant. Toxicity and palatability tests needed. Perennial. Wild. Seed.
- PI 516500 donor id: GR 573. origin: Morocco. collected: July 23, 1983. locality: Roadside, 15km S of Boumia on Road 3427, N of Midelt. elevation: 1800m. remarks: 330mm annual, 114mm in 1983. Wild. Seed.
- PI 516501 donor id: GR 588. origin: Morocco. collected: July 23, 1983. locality: 12km N of Tounfit on Boumia Road, W of Midelt. elevation: 1900m. Perennial. Wild. Seed.
- PI 516502 donor id: GR 843. origin: Morocco. collected: August 02, 1983. locality: 156km E of Agadir on Road S 501. elevation: 1575m. Wild. Seed.

PI 516503 to 516504. *Atriplex halimus* L. CHENOPODIACEAE 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 516503 donor id: GR 22. origin: Morocco. collected: July 04, 1983. locality: Enclosure, E of Rabat. Cultivated. Seed.

PI 516504 donor id: GR 846. origin: Morocco. collected: August 10, 1983. locality: Kimberly farm, Osborne Park, Western Australia and shipped back to Morocco. Cultivated. Seed.

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.

donor id: GR 660. origin: Australia. collected: July 30, 1983. locality: Experiment planting, 5km E of Boulmalne at the Range Experiment Station, Ouarzazate. remarks: Introduction from Australia. Cultivated. Seed.

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 516509 donor id: GR 383. origin: Morocco. collected: July 11, 1983. locality: Road bank. remarks: One plant. Perennial. Wild. Seed.

PI 516510 donor id: GR 402. origin: Morocco. locality: Roadside, 9km S of Chechaouen at intersection of P 39 and P 28. elevation: 390m. Perennial. Wild. Seed.

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  
Barba de chivo

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 653. origin: Morocco. collected: July 30, 1983. locality: Hotel La Gazelle in Ouarzazate. elevation: 1160m. remarks: Plant 4m tall. Leaves pinnately compound. Corolla yellow. Stamens red, extend 3x corolla. Ornamental. Tree. Cultivated. Seed.

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 516516 **donor id:** GR 751. **origin:** Morocco. **collected:** August 03, 1983. **locality:** Beach in 200mm precipitation zone, 5km S of Agadir. Wild. Seed.

PI 516517 **donor id:** GR 782. **origin:** Morocco. **collected:** August 04, 1983. **locality:** 98km W of Marrakech and 23km N of Chichaoua on Road S 511. **elevation:** 250m. Wild. Seed.

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 516518 **donor id:** GR 351. **origin:** Morocco. **collected:** July 09, 1983. **locality:** Market, near Rabat. Cultivated. Seed.

PI 516519 **donor id:** GR 386. **origin:** Morocco. **collected:** July 11, 1983. **locality:** Market, Chechaouen. Cultivated. Seed.

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.

**donor id:** GR 584. **origin:** Morocco. **collected:** July 23, 1983. **locality:** North of Tounfite, W of Midelt. **elevation:** 1900m. Wild. Seed.

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 516522 **donor id:** GR 294. **origin:** Morocco. **collected:** July 06, 1983. **locality:** Roadside, 33km SE of Tiflet. **elevation:** 300m. **remarks:** 500-550mm annual precipitation. Annual. Wild. Seed.

PI 516523 **donor id:** GR 551. **origin:** Morocco. **collected:** July 20, 1983. **locality:** Mixed deciduous, small oak rangeland, 13km E of junction of Roads P 24 and 4629 on Road 4630, 29km NE of Ifrane. **elevation:** 1625m. Perennial. Wild. Seed.

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 516525 donor id: GR 764. origin: Morocco. collected: August 04, 1983. locality: 98km W of Marrakech and 23km N of Chichaoua on Road S 511. elevation: 250m. remarks: 175mm precipitation zone. Wild. Seed.

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.

donor id: GR 348. origin: Morocco. collected: July 07, 1983. locality: 3km S of Tiflet toward Khenifra on Road S 209. Wild. Seed.

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.

donor id: GR 430. origin: Morocco. collected: July 13, 1983. locality: Cork oak forest, E of Ouezzane, near Izeren Forest Service Station. elevation: 500m. remarks: Shrub. Wild. Seed.

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 donor id: GR 20. origin: Morocco. collected: July 03, 1983. locality: 15km from Sid-Allal-Bahraoui toward Kenitra on Road P 29. Wild. Seed.

PI 516529 donor id: GR 28. origin: Morocco. collected: July 04, 1983. locality: Heavily grazed area, 2km from main hwy, N of Rabat, Mehdiya Plage. remarks: Few plants. Wild. Seed.

PI 516528 to 516546-continued

- PI 516530 donor id: GR 30. origin: Morocco. collected: July 04, 1983. locality: Sandy, loam soil, not grazed, 8km from Mehdia de Plage. remarks: Tall, robust. In coastal scrub of Erica sp. and Juniperus sp. Wild. Seed.
- PI 516531 donor id: GR 356. origin: Morocco. collected: July 10, 1983. locality: Along coast, rocky area with sandy soil, 20km S of Rabat, Temara-Plage. elevation: 15m. Wild. Seed.
- PI 516532 donor id: GR 414. origin: Morocco. collected: July 12, 1983. locality: Forest Service re-forestation project protected by grazing, 17km N of Ouezzane. elevation: 255m. Wild. Seed.
- PI 516533 donor id: GR 417. 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 516534 donor id: GR 438. origin: Morocco. collected: July 13, 1983. locality: 5km S of Zitouna on Road 2641, W of Ouezzane. elevation: 210m. remarks: In mixed annual species and midget palm. Wild. Seed.
- 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 516536 donor id: GR 453. origin: Morocco. collected: July 14, 1983. locality: 4km E of Bab-Berred on Road P 39. elevation: 1250m. Wild. Seed.
- PI 516537 donor id: GR 469. origin: Morocco. collected: July 15, 1983. locality: Arid site, 9km S of Tizi-Ouzli on Road S 312, N of Aknoul. elevation: 1300m. Wild. Seed.
- PI 516538 donor id: GR 477. origin: Morocco. collected: July 15, 1983. locality: Vineyard, N edge of Tizi-Ouzli on Road S 312, 18km N of Aknoul. elevation: 1225m. 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 516540 donor id: GR 507. origin: Morocco. collected: July 19, 1983. locality: Entrance to ski lift road, Mischliffen, on Road S 206, SE of Azrou. elevation: 1950m. Wild. Seed.

PI 516528 to 516546-continued

- PI 516541 donor id: GR 526. origin: Morocco. collected: July 19, 1983. locality: Protected area in cedar forest, 7km S of Azrou on Road P 21. elevation: 1800m. Wild. Seed.
- PI 516542 donor id: GR 534. 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. Wild. Seed.
- PI 516543 donor id: GR 539. origin: Morocco. collected: July 20, 1983. locality: Ski lift road, Mischliffen, SE of Azrou. elevation: 1900m. Wild. Seed.
- 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.

donor id: GR 525. origin: Morocco. collected: July 19, 1983. locality: Protected area of Cedar Forest, 7km S of Azrou on Road P 21. elevation: 1800m. Wild. Seed.

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 516548 donor id: GR 733. origin: Morocco. collected: August 02, 1983. locality: Roadside, pioneer sites, 153km S of Marrakech on Road S 501. elevation: 1350-1575m. remarks: Bulk sample from two sites. Perennial. Wild. Seed.

PI 516549 donor id: GR 786. origin: Morocco. collected: August 05, 1983. locality: 103km E of Marrakech and N of Demnate. remarks: 400-500mm precipitation zone. Perennial. Wild. Seed.

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 516557 to 516566-continued

- PI 516558 donor id: GR 379. origin: Morocco. collected: July 11, 1983. locality: Forest Service Seed Field, 22km W of Ouezzane on Road P 23. elevation: 200m. remarks: May be same as cv. Perla. Cultivated. Seed.
- PI 516559 donor id: GR 473. origin: Morocco. collected: July 15, 1983. locality: Along drainage way on E side of road, S of Tizi-Ouzli on Road S 312, N of Aknoul. elevation: 1175m. Wild. Seed.
- PI 516560 donor id: GR 482. origin: Morocco. collected: July 16, 1983. locality: 1 km W of Ain-Benimathar, 83km S of Oujda. remarks: 250mm ppt. location. Drought tolerance. 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 516562 donor id: GR 543. origin: Morocco. collected: July 20, 1983. locality: Stream bank, 4km S of Ifrane on Road S 309. elevation: 1700m. 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 516564 donor id: GR 655. origin: Morocco. collected: July 30, 1983. locality: 82km N of Ouarzazate on Road 6849 at Ilghname. elevation: 1950m. 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 516567 donor id: GR 398. origin: Morocco. collected: July 12, 1983. locality: Forest Service Nursery, Ain Rami near Chechaouen. elevation: 560m. remarks: Protected from grazing. received as: *F. elatior*. Wild. Seed.
- PI 516568 donor id: GR 413. origin: Morocco. collected: July 12, 1983. locality: Forest Service Project land, 17km N of Ouezzane. elevation: 260m. received as: *F. elatior*. Wild. Seed.
- 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 Aknoul. elevation: 1225m. remarks: Leaves narrow. received as: *F. elatior*. Wild. Seed.
- PI 516570 donor id: GR 517. origin: Morocco. collected: July 19, 1983. locality: Opening in Cedar Forest, 7km S of Azrou on Road P 21. elevation: 1800m. remarks: Protected from grazing. 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.

donor id: GR 541. origin: Morocco. collected: July 20, 1983. locality: Mountain meadow slopes, base of ski lift, Mischliffen, SE of Azrou. elevation: 1900m. Wild. Seed.

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.

donor id: GR 529. origin: Morocco. collected: July 20, 1983. locality: Sink Hole, 3km W of junction of Roads P 3390 and P 21, 18km S of Azrou. elevation: 1875m. remarks: Small shrub steppe dominated by *Genista* spp. Wild. Seed.

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 Gesellschaft 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 516582 donor id: GR 830. origin: Morocco. collected: August 09, 1983. locality: Heavy caliche soil, along stream bed, 20km E of Tangiers on Road S 704. elevation: 50m. remarks: Ecotype 2. Wild. Seed.

PI 516583 donor id: GR 862. origin: Tunisia. collected: August 23, 1983. locality: Clay basic soil, roadside, Maktar, 12km W of Maktar to Sbeitla on P 4. elevation: 1000m. remarks: 500mm rainfall. Wild. Seed.

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 516584 donor id: GR 506. origin: Morocco. collected: July 19, 1983. locality: Growing under trees along road, 1 km W of Mischliffen on Road 3206, SE of Azrou. elevation: 1950m. Wild. Seed.

PI 516585 donor id: GR 542. origin: Morocco. collected: July 20, 1983. locality: Mountain meadow slopes, base of ski lift at Mischliffen, SE of Azrou. elevation: 1900m. remarks: Plant abundant, mixed with *Festuca rubra* and *F. ovina*. Wild. Seed.

PI 516586 donor id: GR 555. origin: Morocco. collected: July 20, 1983. locality: On Road 4630, 13km E of junction of Roads P 24 and 4629, 29km NE of Ifrane. elevation: 1625m. Wild. Seed.

PI 516587 donor id: GR 586. origin: Morocco. collected: July 23, 1983. locality: Between Boumia and Tounfite, W of Midelt. elevation: 1900m. Wild. Seed.

PI 516588 donor id: GR 731. origin: Morocco. collected: August 02, 1983. locality: 156km NE of Agadir on Road S 501. elevation: 1575m. Annual. Wild. Seed.

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 516589    **donor id:** GR 295.    **origin:** Morocco.    **collected:** July 06, 1983.    **locality:** 33km SE of Tiflet.    **elevation:** 300m.  
**remarks:** 500-550mm annual precipitation site. Soil 8.0pH.  
Annual. Wild. Seed.

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.

**donor id:** GR 437.    **origin:** Morocco.    **collected:** July 13, 1983.    **locality:** 5km S of Zitouna on Road 2641, W of  
Ouezzane.    **elevation:** 210m.    Perennial. Wild. Seed.

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.

**donor id:** GR 654.    **origin:** Morocco.    **collected:** July 30, 1983.    **locality:** Near Ouarzazate Oasis at Fadragoun.  
**remarks:** Grown by Ait Allah Brahim. Cultivated. Seed.

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    **donor id:** GR 38.    **origin:** Morocco.    **collected:** July 04, 1983.    **locality:** Loam soil, roadside, 17km E of Rabat.  
Wild. Seed.

PI 516593 to 516598-continued

- PI 516594 donor id: GR 367. origin: Morocco. collected: July 10, 1983. locality: Roadside, E edge of village, Moulay-Bousselham, 89km N of Kenitra. elevation: 20m. Wild. Seed.
- PI 516595 donor id: GR 376. origin: Morocco. collected: July 11, 1983. locality: Roadside, 13km NE of Souk-El-Arba-du-Rharb, near Thine- Serafah on Road P 23. elevation: 75m. Wild. Seed.
- 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 516597 donor id: GR 765. origin: Morocco. collected: August 04, 1983. locality: 98km W of Marrakech and 23km N of Chichaoua on Road S 511. elevation: 250m. remarks: 175mm precipitation zone. 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.

donor id: GR 429. origin: Morocco. collected: July 13, 1983. locality: Nursery plots, 15km W of Ouezzane at M'Da Forestry Nursery. elevation: 200m. Cultivated. Seed.

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.

donor id: GR 397. origin: Morocco. collected: July 12, 1983. locality: Forest Service Nursery, Ain Rami near Chechaouen. elevation: 560m. remarks: Protected from grazing. Perennial. Wild. Seed.



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 516602 **donor id:** GR 21. **origin:** Morocco. **collected:** July 1983. **locality:** Enclosure planted by Forestry Department, E of Rabat. **remarks:** Shrub. **received as:** *Lavandula stoechas*. Perennial. Cultivated. Seed.

PI 516603 **donor id:** GR 312. **origin:** Morocco. **collected:** July 06, 1983. **locality:** 3km S of Oulmes, on road 2516. Wild. Seed.

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.

**donor id:** GR 739. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Mountain zone, Taguergoust, W of Ouarzazate on Road P 32. **elevation:** 1150m. **remarks:** Donated by Amayoud M'Hamed. Cultivated. Seed.

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 516605 **donor id:** GR 545. **origin:** Morocco. **collected:** July 20, 1983. **locality:** Sand on N side of Lake shore, Dayet Aaoua, 17km N of Ifrane. **elevation:** 1500m. Wild. Seed.
- PI 516606 **donor id:** GR 684. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain meadow site near Msemrir, 70km N of Boulmane on Road 3444 at Taghzout Ait Marghad, Ouarzazate. **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 516607 **donor id:** GR 117. **origin:** Morocco. **collected:** July 05, 1983. **other id:** MG 140683-0502. **source:** ICARDA, Aleppo, Syria. **other id:** IFG 1143. **locality:** Hilly country, sandy loam soil over limestone-sandstone, 21km from Bin-el-Ouidane to Beni Mellal, Azilal. **elevation:** 1300m. **remarks:** 520mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- 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 516611 donor id: GR 544. origin: Morocco. collected: July 20, 1983. locality: Stream bank, 4km S of Ifrane on Road S 309. elevation: 1700m. Wild. Seed.

PI 516612 donor id: GR 549. origin: Morocco. collected: July 20, 1983. locality: Sand beach near N edge of lake, Dayet Aaoua, 17km N of Ifrane. remarks: Plant prostrate. Excellent seed production. Wild. Seed.

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.

donor id: GR 560. origin: Morocco. collected: July 21, 1983. locality: Olive groves, roadside, 7.2km S of junction of Roads P 3 and S 306, 45km W of Fes. elevation: 700m. Wild. Seed.

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 516614 donor id: GR 476. origin: Morocco. collected: July 15, 1983. locality: Dryland vineyard, N edge of Tizi-Ouzli on Road S 312, 18km N of Aknoul. elevation: 1225m. remarks: Plants abundant. Pods pubescent, most shattered. Seeds large. received as: *Lotus prostratus*. Wild. Seed.

PI 516615 donor id: GR 583. origin: Morocco. collected: July 23, 1983. locality: North of Tounfite, W of Midelt. elevation: 1900m. received as: *Lotus prostratus*. Wild. Seed.

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, 45km from Rabat, Rommani, Khemisset. **elevation:** 200m. **remarks:** 480mm 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, 45km 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, 15.5km 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, 5km 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 516622 donor id: GR 327. origin: Morocco. collected: July 07, 1983. other id: GTZ 6228. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516623 donor id: GR 333. origin: Morocco. collected: July 07, 1983. other id: GTZ 6210. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516624 donor id: GR 334. origin: Italy. collected: July 07, 1983. other id: GTZ 6985. remarks: Donated by M. Bounjemate, INRA. Cultivated. Seed.
- PI 516625 donor id: GR 337. origin: Germany, Federal Rep of. collected: July 07, 1983. other id: GTZ 8812. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516626 donor id: GR 338. origin: Germany, Federal Rep of. collected: July 07, 1983. other id: GTZ 9483. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516627 donor id: GR 339. origin: Italy. collected: July 07, 1983. other id: GTZ 6309. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516628 donor id: GR 340. origin: France. collected: July 07, 1983. other id: GTZ 9132. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516629 donor id: GR 342. origin: Morocco. collected: July 07, 1983. other id: GTZ 6090. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516630 donor id: GR 343. origin: Germany, Federal Rep of. collected: July 07, 1983. other id: GTZ 8810. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.

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 donor id: GR 326. origin: Morocco. collected: July 07, 1983. other id: GTZ 6099. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516632 donor id: GR 328. origin: Morocco. collected: July 07, 1983. other id: GTZ 6213. remarks: Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.

PI 516631 to 516638-continued

- PI 516633 donor id: GR 329. origin: Germany, Federal Rep of.  
collected: July 07, 1983. other id: GTZ 6959. remarks:  
Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516634 donor id: GR 330. origin: Soviet Union. collected: July  
07, 1983. other id: GTZ 9789. remarks: Donated by  
Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516635 donor id: GR 331. origin: Morocco. collected: July 07,  
1983. other id: GTZ 9939. remarks: Donated by Mustapha  
Bounjemate, INRA. Cultivated. Seed.
- PI 516636 donor id: GR 332. origin: Morocco. collected: July 07,  
1983. other id: GTZ 9941. remarks: Donated by Mustapha  
Bounjemate, INRA. Cultivated. Seed.
- PI 516637 donor id: GR 336. origin: Germany, Federal Rep of.  
collected: July 07, 1983. other id: GTZ 8815. remarks:  
Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.
- PI 516638 donor id: GR 341. origin: Morocco. collected: July 07,  
1983. other id: GTZ 6215. remarks: Donated by Mustapha  
Bounjemate, INRA. Cultivated. Seed.

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.

donor id: GR 335. origin: Morocco. collected: July 07,  
1983. other id: GTZ 6089. remarks: Donated by Mustapha  
Bounjemate, INRA. Cultivated. Seed.

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.

donor id: GR 432. origin: Morocco. collected: July 13,  
1983. locality: Slightly sandy soil, under Aleppo pine,  
E of Ouezzane at Izeren Forest Service Station.  
elevation: 500m. Wild. Seed.

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 516641 **donor id:** GR 372. **origin:** Morocco. **collected:** July 10, 1983. **locality:** Roadside, 11km W of Souk-el-Arba-du-Rharb on Road S 216. **Wild. Seed.**

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.

**donor id:** GR 120. **origin:** Morocco. **collected:** July 05, 1983. **other id:** MG 140683-0602. **source:** ICARDA, Aleppo, Syria. **other id:** IFMA 2981. **locality:** Cropped land, sandy loam over limestone/sandstone, 19km from Bin-el-Ouidane, Beni-Mellal, Azilal. **elevation:** 1100m. **remarks:** 520mm ppt/yr. Donated by Mustapha Bounjemate, INRA. **Wild. Seed.**

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 516645 donor id: GR 67. origin: Morocco. pedigree: M. truncatula/M. littoralis. collected: July 05, 1983. other id: SMJ 110683-0304. source: ICARDA, Aleppo, Syria. other id: IFMA 2916. locality: Roadside, undulating terrain, loamy soil, 24km from Azemmour towards Souk-Jemma, Al-Jadida. elevation: 50m. remarks: 330mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516646 donor id: GR 79. origin: Morocco. pedigree: M. truncatula/M. littoralis. collected: July 05, 1983. other id: SMJ 110683-0704. source: ICARDA, Aleppo, Syria. other id: IFMA 2932. locality: Level roadside, loamy soil over limestone, Casablanca International Airport, Casablanca. elevation: 50m. remarks: 400mm ppt/yr. Donated by Mustapha Bounjemate. Wild. Seed.
- PI 516647 donor id: GR 85. origin: Morocco. pedigree: M. truncatula/M. littoralis. collected: July 05, 1983. other id: SMJ 110683-0902. source: ICARDA, Aleppo, Syria. other id: IFMA 2938. locality: Level roadside, sandy soil over sandstone, 14km from Mohammadia towards Rabat, Casablanca. elevation: 20m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516648 donor id: GR 102. origin: Morocco. pedigree: M. truncatula/M. littoralis. 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 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.

- PI 516649 donor id: GR 57. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-0901. source: ICARDA, Aleppo, Syria. other id: IFMA 2902. locality: Level roadside, sandstone/limestone, clay loam, 5km from Ben-Slimane, Souk-Jemaa-des-Feddalate, Casablanca. elevation: 250m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.



PI 516649 to 516652-continued

- PI 516650 donor id: GR 86. origin: Morocco. collected: July 05, 19 9. other id: SMJ 110683-0903. source: ICARDA, Aleppo, Syria. other id: IFMA 2939. locality: Level roadside, sandy soil over sandstone, 14km from Mohammadia to Rabat, Casablanca. elevation: 20m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516651 donor id: GR 188. origin: Morocco. collected: July 05, 19 9. other id: BWM 210683-0301. source: ICARDA, Aleppo, Syria. other id: IFMA 3084. locality: Irrigated cropland, clayloam soil, Sidi Rahhal, 39km from Marrakech to Demnate. elevation: 20m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516652 donor id: GR 371. origin: Morocco. collected: July 10, 1983. locality: Roadside, 11km W of Souk-el-Arba-du-Rharb on Road S 216. Wild. Seed.

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 516653 donor id: GR 130. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0301. source: ICARDA, Aleppo, Syria.. other id: IFMA 2992. locality: Roadside, rolling hills, sandy loam over limestone, 5km from Bin-el-Ouidan to Ouaouizarht, Azilal. elevation: 1000m. remarks: 500mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516654 donor id: GR 136. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0602. source: ICARDA, Aleppo, Syria. other id: IFMA 3000. locality: Level roadside, clay loam soil, 29km from Azilal to Marrakech on Tanannt Road, Azilal. elevation: 1200m. remarks: 600mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- 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-Foum-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, 34km from Souk-de-Foum-Jemaa to Bzou, Azilal. elevation: 1000m. remarks: 350mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516657 donor id: GR 149. origin: Morocco. collected: July 05, 1983. other id: MG 150683-1101. source: ICARDA, Aleppo, Syria. other id: IFMA 3012. locality: Flat cropland, sandy loam over limestone and sandstone, Bzou, along highway between Marrakesh and Beni Mellal. elevation: 550m. remarks: 280mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516658 donor id: GR 155. origin: Morocco. collected: July 05, 1983. other id: MG 160683-0301. source: ACARDA, Aleppo, Syria. other id: IFMA 3020. locality: Hilly grassland, sandy loam over limestone, 11km from Fgih- ben-Salah to Khouribga, Fgih-ben-Salah, Beni Mellal. elevation: 400m. remarks: 280mm 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, 42km from Seltat to Skhour-des-Rehamna, El Kelaa. elevation: 375m. remarks: 270mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516660 donor id: GR 177. origin: Morocco. collected: July 05, 1983. other id: BWM 200683-0601. source: ICARDA, Aleppo, Syria. other id: IFMA 3062. locality: Hilly, fallow land, clay loam over limestone, 58km from Settata to Skhour-des-Rehamna, El Kelaa. elevation: 375m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516661 donor id: GR 181. origin: Morocco. collected: July 05, 1983. other id: BWM 200683-0801. source: ICARDA, Aleppo, Syria. other id: IFMA 3069. locality: Level roadside, clay loam over limestone, 3km from Benguerir to Marrakech, Marrakech, El Kelaa. elevation: 450m. remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516653 to 516679-continued

- 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 roadside, loamy 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: 201mm 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 516653 to 516679-continued

- PI 516668 donor id: GR 195. origin: Morocco. collected: July 05, 1983. other id: BWM 210683-0501. source: ICARDA, Aleppo, Syria. other id: IFMA 3092. locality: Flat roadside, clay loam over sandstone and limestone, 24km from Sidi Rahhal to Demnate. elevation: 600m. remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516669 donor id: GR 205. origin: Morocco. collected: July 05, 1983. other id: BWM 210683-1201. source: ICARDA, Aleppo, Syria. other id: IFMA 3111. locality: Level roadside, sand loam over limestone, 21km from El-Kelaa-des-Srarhna to Benguerir, El Kelaa. elevation: 550m. remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516670 donor id: GR 208. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0101. source: ICARDA, Aleppo, Syria. other id: IFMA 3114. locality: Level roadside, clay loam soil, 21km from Marrakesh to Tamelelt, Marrakech, El Kelaa. elevation: 500m. remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516671 donor id: GR 209. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0201. source: ICARDA, Aleppo, Syria. other id: IFMA 3115. locality: Level, fallow loam, 51km from Marrakesh to Tamelelt. elevation: 500m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516672 donor id: GR 210. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0301. source: ICARDA, Aleppo, Syria. other id: IFMA 3117. locality: Forest, level, clay loam, 17km from Tamelelt to El-Kelaa-des-Srarhna, El Kelaa. elevation: 500m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516673 donor id: GR 211. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0401. source: ICARDA, Aleppo, Syria. other id: IFMA 3120. locality: Level roadside, clay loam soil, 8km from El-Kelaa-des-Srarhna to El Borouj, El Kelaa. elevation: 500m. remarks: Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516653 to 516679-continued

- PI 516674 donor id: GR 213. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0501. source: ICARDA, Aleppo, Syria. other id: IFMA 3124. locality: Level forest, clay loam soil, 27km from El-Kelaa-des-Srarhna to El Borouj, El Kelaa. elevation: 450m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516675 donor id: GR 215. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0503. source: ICARDA, Aleppo, Syria. other id: IFMA 3128. locality: Level forest, clay loam soil, 27km from El-Kelaa-des-Srarhna to El Borouj, El Kelaa. elevation: 450m. remarks: 250mm 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, Settlat. 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, Settlat. elevation: 400m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516678 donor id: GR 776. origin: Morocco. collected: August 04, 1983. locality: Roadside, 23km N of Chichaova on Road S 511, Marrakesh. Wild. Seed.
- PI 516679 donor id: GR 869. origin: Tunisia. collected: August 23, 1983. locality: Rocky, sandy loam, Forest Service Reserve, 2km W of Sbeitla to Kasserins on Pl3, Sbeitla. elevation: 550m. remarks: 250mm ppt/yr. 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 516680 to 516696-continued

- PI 516680 donor id: GR 24. origin: Morocco. collected: July 04, 1983. locality: Hill above beach, red-brown soil, Plage de Nations, 19km N of Rabat. remarks: Heavily grazed by sheep. Wild. Seed.
- PI 516681 donor id: GR 31. origin: Morocco. collected: July 04, 1983. locality: Beach sand, Mehdiya Plage. elevation: 25m. Wild. Seed.
- 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 516684 donor id: GR 61. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0101. source: ICARDA, Aleppo, Syria. other id: IFMA 2910. locality: Flat roadside, sandy soil, 4km from Azemmour to Souk-Jemma-des-Oulad-Abbou, El-Jadida. elevation: 30m. remarks: 330mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516685 donor id: GR 62. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0102. source: ICARDA, Aleppo, Syria. other id: IFMA 2911. locality: Flat roadside, sandy soil, 4km from Azemmour to Souk-Jemma-des-Oulad-Abbou, El-Jadida. elevation: 30m. remarks: 330mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516686 donor id: GR 63. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0201. source: ICARDA, Aleppo, Syria. other id: IFMA 2912. locality: Level roadside, sandy soil, 12km from Azemmour to Souk-Jemma-des-Oulad-Abbou, El-Jadida. elevation: 30m. remarks: 330mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516680 to 516696-continued

- PI 516687 donor id: GR 66. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0303. source: ICARDA, Aleppo, Syria. other id: IFMA 2915. locality: Undulating roadside terrain, loamy soil, 24km from Azemmour to Souk-Jemma-des-Oulad-Abbou, El-Jadida. elevation: 50m. remarks: 330mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516688 donor id: GR 81. origin: Morocco. collected: July 05, 1983. other id: IFMA 2934. other id: SMJ 110683-0802. source: ICARDA, Aleppo, Syria. locality: Level roadside, sandy soil over sandstone, Casablanca to Rabat, Mohammedia, Casablanca. elevation: 20m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516689 donor id: GR 95. origin: Morocco. collected: July 05, 1983. other id: MG 130683-0304. source: ICARDA, Aleppo, Syria. other id: IFMA 2953. locality: Roadside, sandy loam over gneiss, 45km from Rabat to Rommani, Khemisset. elevation: 200m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516690 donor id: GR 101. origin: Morocco. collected: July 05, 1983. other id: MG 130683-0502. source: ICARDA, Aleppo, Syria. other id: IFMA 2966. locality: 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 516691 donor id: GR 152. origin: Morocco. collected: July 05, 1983. other id: MG 160683-0102. source: ICARDA, Aleppo, Syria. other id: IFMA 3016. locality: Flat cropland, clay loam 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 516692 donor id: GR 218. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0602. source: ICARDA, Aleppo, Syria. other id: IFMA 3131. locality: Level fallow, clay loam over limestone, 57km from El-Kelaa-des-Srarhna to El-Borouj, El Kelaa. elevation: 425m. remarks: 250mm 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 516694 donor id: GR 362. origin: Morocco. collected: July 10, 1983. locality: Sand dunes near beach, 35km N of Sale, Mehdiya-Plage. elevation: 10m. Wild. Seed.
- PI 516695 donor id: GR 781. origin: Morocco. collected: August 04, 1983. locality: Roadside, 23km N of Chichaoua on Road S 511, Marrakech. 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 516697 donor id: GR 467. origin: Morocco. collected: July 15, 1983. locality: Very arid site, 9km S of Tizi-Ouzli on Road S 312, N of Aknoul. elevation: 1300m. remarks: Seeds from one plant. Wild. Seed.
- 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 516699 donor id: GR 501. origin: Morocco. collected: July 18, 1983. locality: Heavily grazed area in cedar forest, rocky loam soil, 1 km E of Mischliffen on hwy 3206. elevation: 1950m. remarks: 1000+mm ppt/yr. Wild. Seed.
- PI 516700 donor id: GR 503. origin: Morocco. collected: July 19, 1983. locality: Mischliffen on Road 3206, SE of Azrou. elevation: 1950m. Wild. Seed.
- PI 516701 donor id: GR 505. origin: Morocco. collected: July 19, 1983. locality: Road ditch 1 km W of Mischliffen on Road 3206, SE of Azrou. elevation: 1950m. Wild. Seed.



PI 516697 to 516706-continued

- 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 516703 **donor id:** GR 537. **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:** Six plants. Wild. Seed.
- PI 516704 **donor id:** GR 563. **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. **remarks:** Pods rather immature. Wild. Seed.
- PI 516705 **donor id:** GR 594. **origin:** Morocco. **collected:** July 24, 1983. **locality:** 103km E of Kasba-Tadla on Road P 33, El-Kbab. **elevation:** 2000m. 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 516707 **donor id:** GR 354. **origin:** Morocco. **locality:** Sand dune habitat along coast, 20km S of Rabat, Temara-Plage. **elevation:** 5m. Wild. Seed.
- PI 516708 **donor id:** GR 361. **origin:** Morocco. **collected:** July 10, 1983. **locality:** Sand beach, 35km N of Sale, Mehdiya-Plage. **elevation:** 5m. Wild. Seed.
- PI 516709 **donor id:** GR 365. **origin:** Morocco. **collected:** July 10, 1983. **locality:** Sand beach along ocean, Moulay-Bousselham, 89km N of Kenitra. **elevation:** 10m. Wild. Seed.
- 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 516713 donor id: GR 104. origin: Morocco. collected: July 05, 1983. other id: MG 130683-0701. source: ICARDA, Aleppo, Syria.. other id: IFMA 2971. locality: Flat, fallow, loamy soil over limestone, 10km from Faia ben Salah to Beni Mellal. elevation: 500m. remarks: 250mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.

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 516717 **donor id:** GR 451. **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 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 516719 **donor id:** GR 728. **origin:** Morocco. **collected:** August 02, 1983. **locality:** 156km NE of Agadir on Road S 501. **elevation:** 1575m. 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 donor id: GR 233. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-02. source: ICARDA, Aleppo, Syria. locality: Level, sandy soil over sandstone, roadside from Casablanca to Rabat, Mohammadia. elevation: 20m. remarks: 450mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.
- PI 516724 donor id: GR 235. origin: Morocco. collected: July 05, 1983. other id: MG 140683-02. source: ICARDA, Aleppo, Syria. locality: Protected enclosure in hilly country, clay loam over limestone and sandstone, Ait-Mehammed, 21km from Azilal, Azilal. elevation: 1640m. remarks: 600mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.
- 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 donor id: GR 439. origin: Morocco. collected: July 14, 1983. locality: In vacant lot by Secretary-General's home, Chechaouen. elevation: 590m. Wild. Seed.
- PI 516727 donor id: GR 493. origin: Morocco. collected: July 17, 1983. locality: Around Hotel Panarama, rocky loam, Azrou. elevation: 1350m. remarks: 800mm ppt/yr. Wild. Seed.

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 516729 donor id: GR 154. origin: Morocco. collected: July 05, 1983. other id: MG 160683-0201. source: ICARDA, Aleppo, Syria. other id: IFMA 3019. locality: Flat, fallow, sandy loam over limestone, 5km from Fgih ben Salah to Khouribga, Fgih ben Salah. elevation: 400m. remarks: 280mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.
- PI 516730 donor id: GR 232. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-03. source: ICARDA, Aleppo, Syria. locality: Undulating hills, sandy loam over sandstone, River Ekeur on the Bridge National Highway #1. elevation: <50m. remarks: 530mm 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 516732 donor id: GR 626. origin: Morocco. collected: July 28, 1983. locality: 44km W from Errachidia on P 32, Goulmima, Errachidia. elevation: 1000m. remarks: 150mm ppt/yr. 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 516734 donor id: GR 766. origin: Morocco. collected: August 04, 1983. locality: 98km N of Marrakech and 23km W of Chichaoua on Road S 511. elevation: 250m. remarks: 175mm ppt/yr. Wild. Seed.
- PI 516735 donor id: GR 824. origin: Morocco. collected: August 08, 1983. locality: Clay loam soil, 17km S of Tangiers off Road P 2, SW of airport. elevation: 25m. remarks: 800mm ppt/yr. Soil neutral pH. Wild. Seed.

PI 516736. *Medicago polymorpha* var. *vulgaris* (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 516737 **donor id:** GR 83. **origin:** Morocco. **collected:** July 05, 1983. **other id:** SMJ 110683-0804. **source:** ICARDA, Aleppo, Syria. **locality:** Level roadside, sandy soil over sandstone, from Casablanca to Rabat, Mohammadia, Casablanca. **elevation:** 20m. **remarks:** 450mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.

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 516739 **donor id:** GR 122. **origin:** Morocco. **collected:** July 05, 1983. **other id:** MG 140683-0701. **source:** ICARDA, Aleppo, Syria. **other id:** IFMA 2894. **locality:** Slope, woodland, sandy loam over limestone and sandstone, 26km from Bin El Ouidan to Beni Mellal, Azilal. **elevation:** 1350m. **remarks:** 520mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.

PI 516740 **donor id:** GR 129. **origin:** Morocco. **collected:** July 05, 1983. **other id:** MG 150683-0201. **source:** ICARDA, Aleppo, Syria. **other id:** IFMA 2990. **locality:** Clay loam over limestone, 47km from Beni-Mellal to Azilal, Azilal. **elevation:** 1800m. **remarks:** 650mm ppt/yr. Donated by M. Bounjemate, INRA. Wild. Seed.

PI 516737 to 516753-continued

- PI 516741 donor id: GR 135. origin: Morocco. collected: July 05, 1983. other id: MG 150683-0601. source: ICARDA, Aleppo, Syria. other id: IFMA 2998. locality: Flat roadside, clay loam soil, 29km from Azilal to Marrakesh, Tanannt Road, Azilal. elevation: 1200m. 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 516745 donor id: GR 227. origin: Morocco. collected: July 05, 1983. locality: Level cropland, clay soil over limestone, 22km from Benahmad to Berrached. remarks: 400mm ppt/yr. Donated by M. Bounjemate, INRA. Originally from ICARDA, Aleppo, Syria. Wild. Seed.
- PI 516746 donor id: GR 303. origin: Morocco. collected: July 06, 1983. locality: Roadside near orchard, slightly acid soil, 2km N of Oulmes. elevation: 1200m. Wild. Seed.
- PI 516747 donor id: GR 384. origin: Morocco. collected: July 11, 1983. locality: Roadside, 48km SW of Chechaouen, Es-Sebt on Road P 28. elevation: 125m. 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 516749 donor id: GR 420. origin: Morocco. collected: July 12, 1983. locality: Heavy soil, 24km SE of Chechaouen, 1 km S of Bab-Taza. elevation: 850m. Wild. Seed.

PI 516737 to 516753-continued

- PI 516750 donor id: GR 440. origin: Morocco. collected: July 14, 1983. locality: In vacant lot by Secretary General's house, Chechaouen. elevation: 590m. 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. Wild. Seed.
- PI 516752 donor id: GR 465. origin: Morocco. collected: July 15, 1983. locality: Roadside, arid site, 3km NW of Aknoul on Road S 304. elevation: 1000m. remarks: Spineless. Wild. Seed.
- PI 516753 donor id: GR 609. origin: Morocco. collected: July 25, 1983. locality: Roadside oak forest, 2km S of Azrou on Road P 21. elevation: 1475m. 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 516755 donor id: GR 480. origin: Morocco. local name: Tafilalt. collected: July 16, 1983. locality: Ain-Beni-Mather, 83km S of Oujda. remarks: Stems narrower than Moapa. Cut from March-September. Cultivated. Seed.
- PI 516756 donor id: GR 481. origin: Morocco. local name: Tafilalt. collected: July 16, 1983. locality: Ain-Beni-Mather, 83km S of Oujda. remarks: Originally from Tafilat, S of Ksar-Es-Sour. Finer stem than Moapa. Cultivated. 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

- PI 516758 donor id: GR 574. origin: Morocco. local name: Ifsa. collected: July 23, 1983. locality: Market, Tounfite, W of Midelt. remarks: Originally from Rich. Cultivated. Seed.
- PI 516759 donor id: GR 592. origin: Morocco. collected: July 23, 1983. locality: Market, Midelt. remarks: Originally from Rich. Cultivated. Seed.
- PI 516760 donor id: GR 600. origin: Morocco. local name: Timskite. collected: July 26, 1983. locality: Mountain, Timskite Zone in Meski Oasis, 15km S of Errachidia. remarks: 1982 seed crop. Cultivated. Seed.
- PI 516761 donor id: GR 601. origin: Morocco. local name: Agleir. collected: July 26, 1983. locality: Mountain, Agleir Zone in Meski Oasis, 15km S of Errachidia. remarks: 1982 seed crop. Cultivated. Seed.
- PI 516762 donor id: GR 602. origin: Morocco. local name: Ksar-Jir. collected: July 28, 1983. locality: 9km N of Rissani, 13km S of Erfoud. remarks: 1982 seed crop. Grown by Hads-Mohammed Faridi. Cultivated. Seed.
- PI 516763 donor id: GR 603. origin: Morocco. local name: Ksar-Jebil. collected: July 27, 1983. locality: 6km N of Rissani, 16km S of Erfoud. remarks: 1982 seed crop. Grown by Mohammed Bel-Hadj Hamdaoui. Cultivated. Seed.
- PI 516764 donor id: GR 604. origin: Morocco. collected: July 27, 1983. locality: 3km S of Rissani, near Tabouassamt. remarks: 1983 seed crop. Grown by Mohammed Bonayed. Cultivated. Seed.
- PI 516765 donor id: GR 605. origin: Morocco. collected: July 27, 1983. locality: 3km S of Rissani, near Tabouassamt. remarks: 1983 seed crop. Grown by Omar Karzazi. Cultivated. Seed.
- PI 516766 donor id: GR 606. origin: Morocco. collected: July 27, 1983. locality: Fezna Zone in Jorf Oasis, 20km NW of Erfoud on Road 3451. remarks: 1982 seed crop. Grown by Aissa Roubil. Cultivated. Seed.
- PI 516767 donor id: GR 607. origin: Morocco. collected: July 27, 1983. locality: El Boya Zone in Jorf Oasis, 20km NW of Erfoud on Road 3451. remarks: 1982 seed crop. Grown by Ahmed El Haj. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516768 donor id: GR 608. origin: Morocco. collected: July 27, 1983. locality: Sector C of Oasis near Erfoud at Pump Station, 8km W of Erfoud on Road 3451. remarks: 1982 seed crop. Grown by Jilabi Sebbari. Cultivated. Seed.
- PI 516769 donor id: GR 611. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Goulmima Oasis, Ksar Ait Ihya, Errachidia. remarks: 1983 seed crop. Grown by Ou Bakass. Cultivated. Seed.
- PI 516770 donor id: GR 612. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Goulmima Oasis, Bou Tarfit, Errachidia. remarks: 1982 seed crop. Grown by Baba Khoya. Cultivated. Seed.
- PI 516771 donor id: GR 613. origin: Morocco. collected: July 28, 1983. locality: Oasis Tinjdad, Errachidia. remarks: 1983 seed crop. Donated by Dimou H'Mad. Cultivated. Seed.
- PI 516772 donor id: GR 614. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Oasis Tinjdad, Errachidia. remarks: 1982 seed crop. Donated by Haj Tabiht. Cultivated. Seed.
- PI 516773 donor id: GR 615. origin: Morocco. local name: Sat Tinjdad. collected: July 28, 1983. locality: Mountain zone, Sat Tinjdad Oasis, Errachidia. remarks: 1982 seed crop. Produced by Khaddour Lahbib. Cultivated. Seed.
- PI 516774 donor id: GR 616. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Oasis Tinjdad, Errachidia. remarks: 1983 seed crop. Donated by Kacimi Jilali Khattra Litima. Cultivated. Seed.
- PI 516775 donor id: GR 617. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Oasis Tinjdad, Errachidia. remarks: 1982 seed crop. Donated by Moufid Moha Dar ou Mira. Cultivated. Seed.
- PI 516776 donor id: GR 618. origin: Morocco. collected: July 28, 1983. locality: Sat Tinjdad Oasis, Tinjdad, Errachidia. remarks: 1983 seed crop. Donated by Berjaoui Moha Ben Brahim. Cultivated. Seed.
- PI 516777 donor id: GR 619. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Oasis Goulmima, Errachidia. remarks: 1983 seed crop. Donated by G. Hami. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516778 donor id: GR 620. origin: Morocco. collected: July 28, 1983. locality: Oasis Tinjdad, Errachidia. remarks: 1982 seed crop. Donated by Haj Bouzekri. Cultivated. Seed.
- PI 516779 donor id: GR 621. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Oasis Tinjdad, Errachidia. remarks: 1982 seed crop. Donated by Kassa L'Hou. Cultivated. Seed.
- PI 516780 donor id: GR 622. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Oasis Tinjdad, Errachidia. remarks: 1983 seed crop. Donated by Ait Arab Mohas ou Touil. Cultivated. Seed.
- PI 516781 donor id: GR 625. origin: Morocco. collected: July 28, 1983. locality: Mountain zone, Oasis Goulmima, Errachidia. remarks: 1983 seed crop. Donated by Kerkouch Abderrahmane. Cultivated. Seed.
- PI 516782 donor id: GR 627. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Imazoudar Oasis, 17km from Boumanle Dades, Ouarzazate. elevation: 1600m. remarks: 1983 seed crop. Grown by Affakir Hamou Ben Moh. Cultivated. Seed.
- PI 516783 donor id: GR 630. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Boulmanle Dades Oasis in the village of Ksar Ait Ounire, Ouarzazate. elevation: 1500m. remarks: 1982 seed crop. Grown by Jaddane L'Houssine. Cultivated. Seed.
- PI 516784 donor id: GR 631. origin: Morocco. collected: July 29, 1983. locality: Ksar Meski near Laplasse de Timaskite, near Errachidia, Asrir-Errachidia. remarks: 1982 seed crop. Grown by Khadiri Talbe Ahmed. Cultivated. Seed.
- PI 516785 donor id: GR 632. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Ksar Meski near Plasse de Timaskite, Meski, Errachidia. remarks: 1982 seed crop. Grown by Sa-oudi-Mouhammed. Cultivated. Seed.
- PI 516786 donor id: GR 633. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Aoufousse Oasis in region of Ahannak, Errachidia. remarks: 1983 seed crop. Grown by Oussat Omar. Cultivated. Seed.
- PI 516787 donor id: GR 634. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Tinerhir Oasis, Ouarzazate. remarks: 1983 seed crop. Donated by Oisabois d'ou Zaouia. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516788 donor id: GR 635. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, 22kn NE of Boumalne Dades, Ksar Ait Iddir, Ouarzazate. elevation: 1650m. remarks: 1982 seed crop. Grown by Ben Ikhlag Lafcen. Cultivated. Seed.
- PI 516789 donor id: GR 636. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Boulmalne Dades Oasis, Ouarzazate. elevation: 1600m. remarks: Originally from Rich area. 1982 seed crop. Grown by Mohammed Ben Hssain. Cultivated. Seed.
- PI 516790 donor id: GR 637. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Oasis Tinerhir, Ouarzazate. elevation: 1200m. remarks: 1983 seed crop. Donated by Kaji-Lahcen Ighraou Akdim. Cultivated. Seed.
- PI 516791 donor id: GR 638. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, 15km N of Oasis Tinerhir, Ouarzazate. remarks: 1982 seed crop. Donated by Mourtagi Said. Cultivated. Seed.
- PI 516792 donor id: GR 639. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Timeskite Meski, Errachidia. remarks: 1982 seed crop. Donated by Hadani El-Tultami Ben Hassan. Cultivated. Seed.
- PI 516793 donor id: GR 640. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Meski zone in Ksar Ouled Mhamed near Fam- Noider, near Erachidia City. remarks: 1982 seed crop. Grown by M. Sidi Lahbib. Cultivated. Seed.
- PI 516794 donor id: GR 641. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, 26km N from Boumalne du Dades, Boumalne, Ouarzazate. elevation: 1625m. remarks: 1982 seed crop. Donated by Fatima Lahcen Bent Zagui. Cultivated. Seed.
- PI 516795 donor id: GR 642. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Meski, Errachidia. remarks: 1982 seed crop. Donated by Laamoismi Ali Ben Jilali. Cultivated. Seed.
- PI 516796 donor id: GR 643. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Oasis Tinerhir, Ouarzazate. elevation: 1400m. remarks: 1983 seed crop. Donated by Baadi Ait Bakadi. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516797 donor id: GR 644. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Meski, Errachidia. remarks: 1982 seed crop. Donated by Louazani Bel Kaaii. Cultivated. Seed.
- PI 516798 donor id: GR 645. origin: Morocco. local name: Errachidia. collected: July 29, 1983. locality: Mountain zone, Errachidia. remarks: 1983 seed crop. Locally grown. Cultivated. Seed.
- PI 516799 donor id: GR 646. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Dovima, Aoufouss, Errachidia. remarks: 1983 seed crop. Donated by Boushouba El Mehdi. Cultivated. Seed.
- PI 516800 donor id: GR 647. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Meski, Errachidia. remarks: 1982 seed crop. Donated by Najjar Mohammed Ben M'Hamed. Cultivated. Seed.
- PI 516801 donor id: GR 648. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, souk in Errachidia. Grown in Amajoisj, the second Oasis from Errachidia toward Midelt, Errachidia. remarks: 1983 seed crop. Cultivated. Seed.
- PI 516802 donor id: GR 649. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Aoufouss, Errachidia. remarks: 1983 seed crop. Donated by Rachidi Hachem. Cultivated. Seed.
- PI 516803 donor id: GR 650. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, Aoufouss, Errachidia. remarks: 1983 seed crop. Donated by Omour ou Mouloud. Cultivated. Seed.
- PI 516804 donor id: GR 651. origin: Morocco. collected: July 29, 1983. locality: Mountain zone, El-Kelaa des Mgouna Oasis in Ouarzazate. elevation: 1400m. remarks: Originally from Demnate. 1983 seed crop. Grown by Omar Boutanoult. Cultivated. Seed.
- PI 516805 donor id: GR 661. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 30km N of Ouarzazate on Road 6803 at Oasis Tamdaght, Ouarzazate. elevation: 1400m. remarks: 1982 seed crop. Grown by Bestia Mohamed. Cultivated. Seed.
- PI 516806 donor id: GR 662. origin: Morocco. collected: July 30, 1983. locality: Field, Ouarzazate. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516807 donor id: GR 663. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 30km N of Ouarzazate on Road 6803 at Oasis Tamdaght, Ouarzazate. elevation: 1400m. remarks: 1982 seed crop. Grown by Bouzzagher M'Hamid. Cultivated. Seed.
- PI 516808 donor id: GR 666. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 10km from Skoura, Lahgira, Ouarzazate. remarks: 1983 seed crop. Grown by Elfinti M'Barik. Cultivated. Seed.
- PI 516809 donor id: GR 667. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 10km N from Ouarzazate, Ouarzazate. remarks: 1982 seed crop. Donated by Latifi Hadj Ahmed. Cultivated. Seed.
- PI 516810 donor id: GR 668. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, Skoura, Ouarzazate. remarks: 1983 seed crop. Donated by Azziz Mohammed Ouled Amare. Cultivated. Seed.
- PI 516811 donor id: GR 669. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 7km from Skoura, Ksar Agamatte, Ouarzazate. remarks: 1982 seed crop. Grown by El Khassoni Ahmed. Cultivated. Seed.
- PI 516812 donor id: GR 670.. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 9km E of Skoura, Skoura, Ouarzazate. remarks: 1983 seed crop. Donated by Azizi Aziz. Cultivated. Seed.
- PI 516813 donor id: GR 671. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 10km N of Ouarzazate, Ouarzazate. remarks: 1983 seed crop. Donated by Ichou Hadj Mohammed Ben Ali. Cultivated. Seed.
- PI 516814 donor id: GR 673. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 35km NW of Ouarzazate on Road P 31 at Amarzagane, Ouarzazate. remarks: 1982 seed crop. Produced by Nadin Ali. Cultivated. Seed.
- PI 516815 donor id: GR 674. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 29km N from Ouarzazate or Road 6803, Tamadaghte, Ouarzazate. elevation: 1400m. remarks: 1982 seed crop. Donated by Ahbiri Si M'Hamed Ber Ali. Cultivated. Seed.
- PI 516816 donor id: GR 675. origin: Morocco. collected: July 30, 1983. locality: Mountain zone, 82km N of Ouarzazate on Road 6849, Agouim, Ouarzazate. elevation: 1950m. remarks: 1983 seed crop. Donated by Ait Agouim, Ouarzazate. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516817 **donor id:** GR 676. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Mountain zone, 82km N of Ouarzazate on Road 6849, Agouim, Ouarzazate. **elevation:** 1950m. **remarks:** 1982 seed crop. Donated by Ouazi Mohammed. Cultivated. Seed.
- PI 516818 **donor id:** GR 678. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Mountain zone, 10km N of Ouarzazate, Ouarzazate. **remarks:** 1983 seed crop. Donated by Azarouar Mohammed Bel Hadj. Cultivated. Seed.
- PI 516819 **donor id:** GR 679. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Mountain zone, 82km N of Ouarzazate on Road 6849, Village Ilghmane, Agouim, Ouarzazate. **elevation:** 1950m. **remarks:** 1983 seed crop. Donated by Ait Ahmudou ou Said. Cultivated. Seed.
- PI 516820 **donor id:** GR 680. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Mountain zone, 6km E of Skoura, Ouarzazate. **remarks:** 1983 seed crop. Donated by Chagdali M'Barik. Cultivated. Seed.
- PI 516821 **donor id:** GR 681. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Mountain zone, 8km W of Skoura, Agoumatte, Ouarzazate. **remarks:** 1982 seed crop. Grown by Ayad Moahmed. Cultivated. Seed.
- PI 516822 **donor id:** GR 682. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Mountain zone, 10km N from Ouarzazate, Ouarzazate. **remarks:** 1982 seed crop. Donated by Ait Allah Brahim. Cultivated. Seed.
- PI 516823 **donor id:** GR 683. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Mountain zone, Village Ouled H'Sain Elouaste, Skoura, Ouarzazate. **remarks:** 1982 seed crop. Donated by Tahina Brahim Bel Hadj. Cultivated. Seed.
- PI 516824 **donor id:** GR 695. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, Village Ait Youl, Boumalne, Ouarzazate. **remarks:** Originally from Tafilalet. 1982 seed crop. Donated by El Iaouhari Lahcen. Cultivated. Seed.
- PI 516825 **donor id:** GR 696. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, Village Tagdilte, Boumalne, Ouarzazate. **remarks:** Originally from Rich. 1981 seed crop. Donated by Agdil M'Barek. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516826 **donor id:** GR 697. **origin:** Morocco. **collected:** July 31, 1983. **locality:** 30km N from Boumalne on Road 6901 between Ait Oufi and Ait Sedurate, Ouarzazate. **elevation:** 1700m. **remarks:** 1983 seed crop. Cultivated. Seed.
- PI 516827 **donor id:** GR 698. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, Village Sidi Daovd, Boumalne, Ouarzazate. **remarks:** Originally from Rich. 1982 seed crop. Donated by El-Ghazouhni Brahim. Cultivated. Seed.
- PI 516828 **donor id:** GR 699. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, Boumalne, Ouarzazate. **remarks:** Originally from Tafilalet. 1982 seed crop. Donated by Moussaoui Hmid. Cultivated. Seed.
- PI 516829 **donor id:** GR 700. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, 70km N from Boumalne off Road 3444, Msemrir, Ouarzazate. **elevation:** 2100m. **remarks:** 1982 seed crop. Donated by Hassan Ben Said. Cultivated. Seed.
- PI 516830 **donor id:** GR 701. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, 70km N from Boumalne on Road 3444 near Msemrir at Taghzout Ait Merghad, Ouarzazate. **elevation:** 2100m. **remarks:** 1981 seed crop. Grown by Echikh MBarek. Cultivated. Seed.
- PI 516831 **donor id:** GR 702. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, 70km N from Boumalne off Road 3444 near Msemrir at Taghzout Ait Merghad, Ouarzazate. **elevation:** 2100m. **remarks:** 1982 seed crop. Donated by Echikh M'Barek. Cultivated. Seed.
- PI 516832 **donor id:** GR 703. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, 70km N from Boumalne on Road 3444 near Msemrir at Taghzout Ait Merghad, Ouarzazate. **elevation:** 2100m. **remarks:** 1983 seed crop. Grown by Echikh MBarek. Cultivated. Seed.
- PI 516833 **donor id:** GR 704. **origin:** Morocco. **collected:** July 31, 1983. **locality:** Mountain zone, 70km N from Boumalne at Taghzout Ait Merghad, Msemrir, Ouarzazate. **elevation:** 2100m. **remarks:** 1982 seed crop. Donated by Jdani Idir. Cultivated. Seed.
- PI 516834 **donor id:** GR 705. **origin:** Morocco. **collected:** August 01, 1983. **locality:** Draa zone, 98km S of Ouarzazate at Tansikht Oasis in Village of Derb on Road P 31. **elevation:** 900m. **remarks:** 1983 seed crop. Grown by Ait Lahcen Mohammed. Cultivated. Seed.



PI 516754 to 516905-continued

- PI 516835 **donor id:** GR 706. **origin:** Morocco. **cultivar:** OULED  
DRISS-AFRICAN. **collected:** August 01, 1983. **locality:**  
Draa zone, S of Ouarzazate and 8km N of Mhamid on Road P  
31, Ouarzazate. **remarks:** 1983 seed crop. Grown by Chich  
El-Bishra Mohammed Salem. Stand three years old.  
Cultivar. Seed.
- PI 516836 **donor id:** GR 707. **origin:** Morocco. **collected:** August  
01, 1983. **locality:** Draa zone, 120km S of Ouarzazate,  
Village Amezaourou, Tinzouline, Ouarzazate. **remarks:**  
1982 seed crop. Donated by Banouiss Blat. Cultivated.  
Seed.
- PI 516837 **donor id:** GR 708. **origin:** Morocco. **collected:** August  
01, 1983. **locality:** Draa zone, 85km S of Ouarzazate,  
Oasis Tanasikhte, Village of Ighran. **elevation:** 900m.  
**remarks:** 1983 seed crop. Grown by Bouchane Lahcan Ben El  
Madani. Cultivated. Seed.
- PI 516838 **donor id:** GR 709. **origin:** Morocco. **collected:** August  
01, 1983. **locality:** Draa zone, 120km S of Ouarzazate,  
Village Ait El-Hadj Lahcine, Tinzouline, Ouarzazate.  
**remarks:** 1983 seed crop. Donated by El Kassini Mohammed  
Ben El Madani. Cultivated. Seed.
- PI 516839 **donor id:** GR 710. **origin:** Morocco. **collected:** August  
01, 1983. **locality:** Draa zone, 120km S of Ouarzazate,  
Village Ait El-Hadj Lahcine, Tinzouline, Ouarzazate.  
**remarks:** 1983 seed crop. Donated by Lakhdar Ben Mohammed.  
Cultivated. Seed.
- PI 516840 **donor id:** GR 711. **origin:** Morocco. **collected:** August  
01, 1983. **locality:** Draa zone, 8km N of Mhamid, Mhamid,  
S of Ouarzazate. **elevation:** 600m. **remarks:** 1983 seed  
crop. Donated by Bachna Mohammed. Cultivated. Seed.
- PI 516841 **donor id:** GR 712. **origin:** Morocco. **collected:** August  
01, 1983. **locality:** Draa zone, 8km N of Mhamid on Road  
6965, Mhamid, S of Ouarzazate. **elevation:** 600m.  
**remarks:** 1982 seed crop. Donated by El-Faida Ali Bel  
Bachis. Cultivated. Seed.
- PI 516842 **donor id:** GR 713. **origin:** Morocco. **collected:** August  
01, 1983. **locality:** Draa zone, 120km S of Ouarzazate,  
Village Rbat Tinzouline, Tinzouline, Ouarzazate.  
**remarks:** 1982 seed crop. Donated by Akhdam El-Madani.  
Cultivated. Seed.
- PI 516843 **donor id:** GR 714. **origin:** Morocco. **collected:** August  
01, 1983. **locality:** Draa zone, Agdz, 68km S of  
Ouarzazate. **elevation:** 900m. **remarks:** 1981 seed crop.  
Grown by Amiri Moha Ben Said. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516844 donor id: GR 715. origin: Morocco. collected: August 01, 1983. locality: Draa zone, Agdz, 68km S of Ouarzazate. remarks: 1982 seed crop. Grown by Sedri Ahmed Ben Lahcen. Cultivated. Seed.
- PI 516845 donor id: GR 716. origin: Morocco. collected: August 01, 1983. locality: Draa zone, Agdz, 68km S of Ouarzazate. remarks: 1982 seed crop. Grown by Aitben Saleh El Korchi. Cultivated. Seed.
- PI 516846 donor id: GR 717. origin: Morocco. collected: August 01, 1983. locality: Draa zone, center of Agdz, 68km S of Ouarzazate. remarks: 1981 seed crop. Grown by Afifi L'Houssain. Cultivated. Seed.
- PI 516847 donor id: GR 718. origin: Morocco. collected: August 01, 1983. locality: Draa zone, Agdz, 68km S of Ouarzazate. remarks: 1982 seed crop. Grown by Bohaddan M'Barek. Cultivated. Seed.
- PI 516848 donor id: GR 719. origin: Morocco. collected: August 01, 1983. locality: Draa zone, 218km S of Ouarzazate on Road 6965, Tagounite, Ouarzazate. remarks: 1983 seed crop. Donated by Maddi Ahmed. Cultivated. Seed.
- PI 516849 donor id: GR 720. origin: Morocco. collected: August 01, 1983. locality: Draa zone, 218km S of Ouarzazate on Road 6965, Tagounite, Ouarzazate. remarks: 1983 seed crop. Donated by El Fadili Salem Ben Omar. Cultivated. Seed.
- PI 516850 donor id: GR 721. origin: Morocco. collected: August 01, 1983. locality: Draa zone, 120km S of Ouarzazate on Road P 31, Tinzouline, Ouarzazate. remarks: 1982 seed crop. Donated by Ait Hassou Houssein Ait Rahou. Cultivated. Seed.
- PI 516851 donor id: GR 722. origin: Morocco. collected: August 01, 1983. locality: Draa zone, 218km S of Ouarzazate on Road 6965, Tagounite, Ouarzazate. elevation: 700m. remarks: 1983 seed crop. Donated by El Attani Abdelkader. Cultivated. Seed.
- PI 516852 donor id: GR 723. origin: Morocco. collected: August 01, 1983. locality: Draa zone, 164km S of Ouarzazate on Road P 31, Zagora, Ouarzazate. elevation: 750m. remarks: 1983 seed crop. Donated by Mohammed Ben El-Madani. Cultivated. Seed.

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. **remarks:** 1983 seed crop. Donated by Ouled Hamido Abdellah. Cultivated. Seed.
- 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. **remarks:** 1983 seed crop. Donated by Ramzi Mohamed. Cultivated. Seed.
- 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. **remarks:** 1982 seed crop. Donated by Rguibi Mohammed. Cultivated. Seed.
- 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. **remarks:** 1983 seed crop. Donated by Salhi Ali. Cultivated. Seed.
- PI 516857 **donor id:** GR 735. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Mountain zone, 62km W of Ouarzazate, Anezal. **elevation:** 1625m. **remarks:** 1983 seed crop. Grown by El Aamhani Mohamed. Cultivated. Seed.
- 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. **remarks:** Originally from Marrakech. 1982 seed crop. Grown by Bourih-Lahcen. Cultivated. Seed.
- 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, Taznakhte, Ouarzazate. **remarks:** 1982 seed crop. Donated by Ait Aabou El-Houcine. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516862 **donor id:** GR 741. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Mountain zone, 95km W of Ouarzazate to Foug-Zguid on Road 6810, Village Tislit, Taznakhte, Ouarzazate. **remarks:** 1982 seed crop. Donated by Banaou Mohamed. Cultivated. Seed.
- PI 516863 **donor id:** GR 742. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Farm, mountain zone, 91km W of Ouarzazine on Road 6810, Village Tislit, Taznakhte, Ouarzazate. **elevation:** 1500m. **remarks:** 1982 seed crop. Donated by Akanouch Abderrahmane. Cultivated. Seed.
- PI 516864 **donor id:** GR 743. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Farm, mountain zone, 62km W of Ouarzazate on Road P 32, Village Anezal, Taznakhte, Ouarzazate. **elevation:** 1625m. **remarks:** 1983 seed crop. Donated by Kanih Saghir. Cultivated. Seed.
- PI 516865 **donor id:** GR 744. **origin:** Morocco. **local name:** Tafilalet. **collected:** August 02, 1983. **locality:** Aoulouz market, 163km E of Agadir on Road P 32, Aoulouz, Agadir. **remarks:** 1982 seed crop. Cultivated. Seed.
- PI 516866 **donor id:** GR 745. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Farm, mountain zone, 175km W of Ouarzazate on Road P 32, Taliouine. **elevation:** 1150m. **remarks:** 1983 seed crop. Donated by Forest Service at Taliouine. Cultivated. Seed.
- PI 516867 **donor id:** GR 746. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Farm, 90km W of Ouarzazate on Road P 32, Taznakhte, Ouarzazate. **elevation:** 1475m. **remarks:** Haouz type originally. 1982 seed crop. Donated by Ait Said Mohammed Ait Ougarsif. Cultivated. Seed.
- PI 516868 **donor id:** GR 747. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Farm, mountain zone, 175km W of Ouarzazate on Road P 32, Village Douzrou, Taliouine. **elevation:** 1150m. **remarks:** 1980 seed crop. Donated by Mouhidine Omar. Cultivated. Seed.
- PI 516869 **donor id:** GR 748. **origin:** Morocco. **collected:** August 02, 1983. **locality:** Market, Souss zone, 45km E of Taroudant on Road P 32, Oulad-Berrahil, Agadir. **elevation:** 400m. **remarks:** 1982 seed crop. Donated by Faith Mohamed. Cultivated. Seed.
- PI 516870 **donor id:** GR 749. **origin:** Morocco. **local name:** Demnate. **collected:** August 02, 1983. **locality:** Market, 45km E of Taroudant on Road P 32, Oulad-Berrahil, Agadir. **remarks:** 1982 seed crop. Donated by Ziate Mohamed. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516871 **donor id:** GR 754. **origin:** Morocco. **local name:** Demnate. **collected:** August 03, 1983. **locality:** Market, 13km E of Agadir on Road P 32, Ait-Melloul, Agadir. **remarks:** Originally from Demnate region. 1982 seed crop. Donated by Fellah-Souss store. Cultivated. Seed.
- PI 516872 **donor id:** GR 755. **origin:** Morocco. **local name:** Demnate. **collected:** August 03, 1983. **locality:** Market, Souss area, 13km E of Agadir on Road P 32, Ait-Melloul, Agadir. **elevation:** 200m. **remarks:** 1982 seed crop. Donated by Boughroudi store. Cultivated. Seed.
- PI 516873 **donor id:** GR 756. **origin:** Morocco. **local name:** Demnate. **collected:** August 03, 1983. **locality:** Bouchain Store, 10km E of Agadir on Road P 32, Inzagane, Agadir. **remarks:** From Demnate area. Originally grown in Souss area. 1982 seed crop. Cultivated. Seed.
- PI 516874 **donor id:** GR 757. **origin:** Morocco. **collected:** August 03, 1983. **locality:** Farm, 33km S of Agadir to El-Khemis, Souk-el-Had-des-Ait-Beifaa, Agadir. **elevation:** 200m. **remarks:** Coastal desert type. 1982 seed crop. Donated by Agdid Ahmad. Cultivated. Seed.
- PI 516875 **donor id:** GR 758. **origin:** Morocco. **collected:** August 03, 1983. **locality:** Market, Souss area, 44km E of Agadir on Road P 32, Oulad-Teima, Agadir. **elevation:** 250m. **remarks:** Coastal desert type. 1983 seed crop. Donated by Hafidi Ahmed. Cultivated. Seed.
- PI 516876 **donor id:** GR 759. **origin:** Morocco. **collected:** August 03, 1983. **locality:** Farm, 35km S of Agadir to Massa, Massa, Agadir. **elevation:** 200m. **remarks:** Tall coastal desert Souss (Massa) type. Donated by Fatima Ben Ahmed. Cultivated. Seed.
- PI 516877 **donor id:** GR 760. **origin:** Morocco. **collected:** August 03, 1983. **locality:** Beach, 50km N of Tiznit to Massa, Village Sidi Benzaen, Massa, Agadir. **remarks:** Tall coastal desert Souss (Massa) type. Donated by Ouria Larbi. Cultivated. Seed.
- PI 516878 **donor id:** GR 761. **origin:** Morocco. **collected:** August 03, 1983. **locality:** 35km S of Agadir to Massa, Village Aghbalou, Massa, Agadir. **remarks:** Tall coastal desert Souss (Massa) type. 1982 seed crop. Donated by Ichibi Mohammed. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516879 **donor id:** GR 767. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Desert, 8km S of Chichaoua on Road S 511 to Agadir, Chichaoua, Marrakech. **elevation:** 300m. **remarks:** Haouz type. 1982 seed crop. Donated by Konchada Kabour. Cultivated. Seed.
- PI 516880 **donor id:** GR 768. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Market, coastal desert, 81km E of Agadir on Road P 32, Taroudant, Agadir. **elevation:** 250-300m. **remarks:** Souss type. 1982 seed crop. Donated by Jillali Ben Ahmed. Cultivated. Seed.
- PI 516881 **donor id:** GR 769. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Market, coastal desert, 81km E of Agadir on Road P 32, Taroudant, Agadir. **elevation:** 250-300m. **remarks:** Souss type. 1983 seed crop. Donated by Ben Ahmed Jnane Ejamaa. Cultivated. Seed.
- PI 516882 **donor id:** GR 770. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Market, coastal desert, 81km E of Agadir on Road P 32, Taroudant, Agadir. **elevation:** 250-300m. **remarks:** Tall, Souss type. 1983 seed crop. Donated by Ahmed Ben Ali. Cultivated. Seed.
- PI 516883 **donor id:** GR 771. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Market, coastal desert, 81km E of Agadir on Road P 32, Taroudant, Agadir. **elevation:** 250-300m. **remarks:** Souss type. 1982 seed crop. Donated by Kharbouch Addelaate. Cultivated. Seed.
- PI 516884 **donor id:** GR 772. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Farm, 8km S of Chichaoua on Road S 511. **elevation:** 300m. **remarks:** Haouz type. 1982 seed crop. Donated by Brad Mohamed. Cultivated. Seed.
- PI 516885 **donor id:** GR 773. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Coastal desert, 44km E of Agadir on Road P 32, Oulad-Teima, Agadir. **elevation:** 200-250m. **remarks:** Souss type. 1982 seed crop. Donated by Oubihi Brahim. Cultivated. Seed.
- PI 516886 **donor id:** GR 774. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Market, coastal desert, 44km E of Agadir on Road P 32, Oulad-Teima, Agadir. **elevation:** 200-250m. **remarks:** Souss type. 1983 seed crop. Donated by Zrigo Brahim. Cultivated. Seed.
- PI 516887 **donor id:** GR 775. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Market, hot desert, 70km W of Marrakech on Road P 10, Chichaoua, Marrakech. **elevation:** 300m. **remarks:** Haouz type. 1983 seed crop. Donated by Elmorden Bojamaa. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516888 donor id: GR 778. origin: Morocco. collected: August 04, 1983. locality: Coastal desert, 81km E of Agadir on Road P 32, Taroudant, Agadir. elevation: 250-300m. remarks: Souss type. 1982 seed crop. Donated by Elouhiali Elyazid. Cultivated. Seed.
- PI 516889 donor id: GR 779. origin: Morocco. collected: August 04, 1983. locality: Hot desert, 8km S of Chichaoua on Road S 511, Chichaoua, Marrakech. elevation: 300m. remarks: Haouz type. 1982 seed crop. Donated by Ben Yahia Lhoucire. Cultivated. Seed.
- PI 516890 donor id: GR 780. origin: Morocco. collected: August 04, 1983. locality: Hot desert, 8km S of Chichaoua on Road S 511, Chichaoua, Marrakech. elevation: 300m. remarks: Haouz type. 1982 seed crop. Donated by Enassiri Ahmed. Cultivated. Seed.
- PI 516891 donor id: GR 787. origin: Morocco. collected: August 05, 1983. locality: Farm, 113km E of Marrakech off Road S 508, Demnate, Marrakech. elevation: 900m. remarks: Haouz, Demnate type. 1982 seed crop. Donated by Ait Atra Mohamed. Cultivated. Seed.
- PI 516892 donor id: GR 788. origin: Morocco. local name: Demnate town. collected: August 05, 1983. locality: Market, 113km E of Marrakech off Road S 508, Demnate, Marrakech. elevation: 900m. remarks: Haouz, Demnate type. 1982 seed crop. Donated by Boulouche Mohau Ait ou Alit. Cultivated. Seed.
- PI 516893 donor id: GR 789. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 25km E of Marrakech off Road P 31, Marrakech. elevation: 500m. remarks: Haouz type. 1983 seed crop. Donated by Aicha Ben Lahcen Gharnite. Cultivated. Seed.
- PI 516894 donor id: GR 790. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 60km E of Marrakech on Road S 508, off Road P 24, Tamalet, Marrakech. elevation: 600m. remarks: Haouz type. 1982 seed crop. Donated by Jikhi Omar Ben Ahmed. Cultivated. Seed.
- PI 516895 donor id: GR 793. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 68km E of Marrakech on Road P 24, Tamalet, Marrakech. elevation: 600m. remarks: Haouz type. 1982 seed crop. Donated by El Haddad Larbi. Cultivated. Seed.

PI 516754 to 516905-continued

- PI 516896 donor id: GR 794. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 68km E of Marrakech on Road P 24, Tamalet, Marrakech. elevation: 600m. remarks: Haouz type. 1982 seed crop. Donated by Ait Ghaleu Abderrazak. Cultivated. Seed.
- PI 516897 donor id: GR 795. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 68km E of Marrakech on Road P 24, Tamalet, Marrakech. elevation: 600m. remarks: Haouz type. 1982 seed crop. Donated by El Mostapha Ben Mohammed. Cultivated. Seed.
- PI 516898 donor id: GR 796. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 68km E of Marrakech on Road P 24, Tamalet, Marrakech. elevation: 600m. remarks: Haouz type. 1982 seed crop. Donated by Mimassia Elmakhar Ben Ahmed. Cultivated. Seed.
- PI 516899 donor id: GR 797. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 68km E of Marrakech on Road P 24, Tamalet, Marrakech. elevation: 600m. remarks: Haouz type. 1982 seed crop. Donated by Echafai Ben Abdellah. Cultivated. Seed.
- PI 516900 donor id: GR 798. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 64km E of Marrakech on Road P 24, Tamalet, Marrakech. elevation: 600m. remarks: Originally thought to have come from Russia. Grown 6 yrs in Tamalet. Stems red, tall. Grown in Haouz zone. Donated by Fabil Mohammed Ben Abdelkader. Cultivated. Seed.
- PI 516901 donor id: GR 799. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 68km E of Marrakech on Road P 24, Tamalet, Marrakech. elevation: 600m. remarks: Haouz type. 1982 seed crop. Donated by El Hachm Ben Ali Ben Essadak. Cultivated. Seed.
- PI 516902 donor id: GR 800. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 30km E of Marrakech off Road P 31, Ait-Ourir, Marrakech. elevation: 600m. remarks: Haouz type. 1982 seed crop. Donated by Hadj Fariss Garmane. Cultivated. Seed.
- PI 516903 donor id: GR 801. origin: Morocco. collected: August 05, 1983. locality: Hot desert, 113km E of Marrakech of Road S 508, Demnate, Marrakech. elevation: 900m. remarks: Demnate Haouz type. 1982 seed crop. Donated by Ouaziz Lahcen. Cultivated. Seed.



PI 516754 to 516905-continued

PI 516904    **donor id:** GR 815.    **origin:** Morocco.    **collected:** August 08, 1983.    **locality:** 81km E of Rabat and 3km from Khemisset, Ait-Haeuon Hadolon.    **remarks:** Local strain. Origin not known. 1983 seed crop. Grown by Huironche Mohate. Cultivated. Seed.

PI 516905    **donor id:** GR 816.    **origin:** Morocco.    **collected:** August 08, 1983.    **locality:** 81km E of Rabat and 6km from Khemisset, Ait-Bougrine.    **remarks:** 1982 seed crop. Grown by Ahmad Bonfousse. Cultivated. Seed.

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.

**donor id:** GR 596.    **origin:** Morocco.    **collected:** July 24, 1983.    **locality:** 90km W of Midelt on Road P 33.    **elevation:** 2000m.    **remarks:** Upper leaf surface somewhat hairy. Leaf shape more like *M. suffruticosa*. Wild. Seed.

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.

**donor id:** GR 124.    **origin:** Morocco.    **collected:** July 05, 1983.    **other id:** MG 140683-0801.    **source:** ICARDA, Aleppo, Syria.    **other id:** IFMA 2986.    **locality:** Wooded, sandloam over limestone and sand-stone soil, 34km from Bin-el-Ouidane, Beni-Mellal, Azilal.    **elevation:** 800m.    **remarks:** 600mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

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-Srarhna. **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- Kalaa Srarhna, 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 516912 to 516915-continued

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 516916 donor id: GR 25. origin: Morocco. collected: July 04, 1983. locality: Hill above beach, NW slope facing ocean, red-brown sandy loam, heavily grazed by sheep, Plage de Nations, 19km N of Rabat. Wild. Seed.

PI 516917 donor id: GR 41. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-0103. source: ICARDA, Aleppo, Syria. locality: Flat roadside, sandy soil, corner of Royal Golf Place, Rabat on road to Rommani. elevation: 65m. remarks: 550mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516918 donor id: GR 59. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-1002. source: ICARDA, Aleppo, Syria. other id: IFMA 2906. locality: Level, fallow, sandy soil, 1 km from Sidi-Hajjaj towards Casablanca, Casablanca. elevation: 10m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516919 donor id: GR 71. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0601. source: ICARDA, Aleppo, Syria. other id: IFMA 2924. locality: Level roadside, sandy soil, 18km from Bir-Jdid towards Berrechid, Settati. elevation: 100m. remarks: 350mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516920 donor id: GR 72. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0602. source: ICARDA, Aleppo, Syria. other id: IFMA 2925. locality: Level roadside, sandy soil, 18km from Bir-Jdid to Berrechid, Casablanca, Settati. elevation: 100m. remarks: 350mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516916 to 516922-continued

- PI 516921 donor id: GR 90. origin: Morocco. collected: July 05, 1983. other id: MG 130683-0101. source: ICARDA, Aleppo, Syria. other id: IFMA 2945. locality: Level roadside, sandy soil over sandstone, 15km from Rabat towards Rommani, Rabat. elevation: 50m. remarks: 550mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- 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 516923 donor id: GR 44. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-0401. source: ICARDA, Aleppo, Syria. other id: IFMA 2884. locality: Flat, fallow, sandstone, sandy loam, acidic, 12km S from Skhirat to Sidi-Bettache, Mas Res. Station, Rabat. elevation: 50m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516924 donor id: GR 49. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-0602. source: ICARDA, Aleppo, Syria. other id: IFMA 2891. locality: Flat, level roadside, sandy loam, acidic, 27km S from Skhirat to Sidi-Bettache, Rabat. elevation: 70m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516925 donor id: GR 53. origin: Morocco. collected: July 05, 1983. other id: SMJ 100683-0801. source: ICARDA, Aleppo, Syria. other id: IFMA 2896. locality: Flat roadside, sandy loam, 28km from Sidi-Bettache, 5km E of Ben-Slimane, Rabat, Casablanca. elevation: 100m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516926 donor id: GR 65. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0302. source: ICARDA, Aleppo, Syria. other id: IFMA 2914. locality: Roadside, undulating terrain, loamy soil, schist-gneiss, 24km from Azemmour towards Souk-Jemma, El-Jadida. elevation: 50m. remarks: 330mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516923 to 516950-continued

- PI 516927 donor id: GR 69. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0501. source: ICARDA, Aleppo, Syria. other id: IFMA 2921. locality: Hillside, sandy loam, Snde Station, Chtouca, El Jadida, Settat. elevation: 100m. remarks: 330mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516928 donor id: GR 76. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0701. source: ICARDA, Aleppo, Syria. other id: IFMA 2929. locality: Level roadside, loamy soil over limestone, Casablanca International Airport, Casablanca. elevation: 50m. remarks: 400mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516929 donor id: GR 77. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0702. source: ICARDA, Aleppo, Syria. other id: IFMA 2930. locality: Level roadside, loamy soil over limestone, Casablanca International Airport, Casablanca. elevation: 50m. remarks: 400mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516930 donor id: GR 80. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0801. source: ICARDA, Aleppo, Syria. other id: IFMA 2933. locality: Level roadside, sandy soil over sandstone, from Casablanca towards Rabat, Mohammadia, Casablanca. elevation: 20m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516931 donor id: GR 84. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0901. source: ICARDA, Aleppo, Syria. other id: IFMA 2937. locality: Level roadside, sandy soil over sandstone, 14km from Mohammadia toward Rabat, Casablanca. elevation: 20m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516932 donor id: GR 88. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-1002. source: ICARDA, Aleppo, Syria. other id: IFMA 2943. locality: Level roadside, sandy soil, Louisia, from Mohammadia to Rabat, Ben-Slimane. elevation: 45m. remarks: 500mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516933 donor id: GR 93. origin: Morocco. collected: July 05, 1983. other id: MG 130683-0302. source: ICARDA, Aleppo, Syria. other id: IFMA 2951. locality: Roadside, sandy loam over gneiss, 45km from Rabat to Rommani, Rabat, Khemisset. elevation: 200m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516923 to 516950-continued

- 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, Settati. **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 516923 to 516950-continued

- PI 516940 donor id: GR 189. origin: Morocco. collected: July 05, 1983. other id: BWM 210683-0303. source: ICARDA, Aleppo, Syria. other id: IFMA 3086. locality: Irrigated cropland, clayloam soil, 39km from Marrakech to Demnate, Sidi-Rahhal, Marrakesh. elevation: 500m. remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516941 donor id: GR 214. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0502. source: ICARDA, Aleppo, Syria. other id: IFMA 3125. locality: Level forest, clayloam soil, 27km from El-Kelaa-Srarhna to El Borouj, El Kelaa. elevation: 450m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516942 donor id: GR 217. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0601. source: ICARDA, Aleppo, Syria. other id: IFMA 3130. locality: Level fallow, clayloam over limestone, 57km from El-Kelaa-Srarhna to El Borouj, El Kelaa. elevation: 425m. remarks: 250mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516943 donor id: GR 228. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-1001. source: ICARDA, Aleppo, Syria. other id: IFMA 3145. locality: Level roadside, clayloam soil over limestone, 30km from Benahmad to Berrached, Settat. elevation: 400m. remarks: 400mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516944 donor id: GR 278. origin: Morocco. collected: July 06, 1983. locality: Slope, drainage way near highway, heavily grazed, 15km SE of Tiflet on Road S 209. elevation: 300m. remarks: Soil pH 7.5-8.0. 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 516948 donor id: GR 380. 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 516949 donor id: GR 546. origin: Morocco. collected: July 20, 1983. locality: Northside of lake, Dayet Aaoua, 17km N of Ifrane. elevation: 1500m. Wild. Seed.
- PI 516950 donor id: GR 813. origin: Morocco. collected: August 07, 1983. locality: Clay loam soil, 24km S of Rommani on Road P 22. elevation: 700m. remarks: 550mm ppt/yr. Soil pH basic. Wild. Seed.

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 516951 donor id: GR 36. origin: Morocco. collected: July 04, 1983. locality: Sandy loam soil, 17km E of Rabat toward Meknes. Wild. Seed.
- 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 516954 donor id: GR 58. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0902. source: ICARDA, Aleppo, Syria. other id: IFMA 2903. locality: Level roadside, sandstone-limestone-clay loam, 5km from Ben Slimane to Souk-Jemaa-des-Feddalate, Rabat, Casablanca. elevation: 250m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.



PI 516951 to 516978-continued

- PI 516955 donor id: GR 64. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0301. source: ICARDA, Aleppo, Syria. other id: IFMA 2913. locality: Roadside, undulating terrain, loam, schist-gneiss, 24km from Azemmour to Souk-Jemaa-des-Oulad-Abbou, El-Jadida. elevation: 50m. remarks: 330mm 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 516957 donor id: GR 82. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-0803. source: ICARDA, Aleppo, Syria. other id: IFMA 2935. locality: Level roadside, sandy soil over sandstone, 25km N of Casablanca toward Rabat, Mohammadia, Casablanca. elevation: 20m. remarks: 450mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516958 donor id: GR 89. origin: Morocco. collected: July 05, 1983. other id: SMJ 110683-1003. source: ICARDA, Aleppo, Syria. other id: IFMA 2944. locality: Level roadside, sandy soil, from Mohammadia to Rabat, Louisia, Ben Sliman. elevation: 45m. remarks: 500mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516959 donor id: GR 92. origin: Morocco. collected: July 05, 1983. other id: MG 130683-0301. source: ICARDA, Aleppo, Syria. other id: IFMA 2950. locality: Roadside, sandy loam over gneiss, 45km from Rabat to Rommani, Khemisset. elevation: 200m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516960 donor id: GR 109. origin: Morocco. collected: July 05, 1983. other id: MG 140683-0201. source: ICARDA, Aleppo, Syria. other id: IFMA 2975. locality: Hilly area, enclosure, level, clayloam over limestone and sandstone, Ait-Mohammed, 21km from Azilal, Azilal. elevation: 1600m. remarks: 600mm 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 516962 donor id: GR 119. origin: Morocco. collected: July 05, 1983. other id: MG 140683-0601. source: ICARDA, Aleppo, Syria. other id: IFMA 2980. locality: Undulating, cropped land, sandy loam over limestone and sandstone, 19km from Bin-el-Ouidane to Beni-Mellal, Azilal. elevation: 1100m. remarks: 520mm 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 516965 donor id: GR 148. origin: Morocco. collected: July 05, 1983. other id: MG 150683-1003. source: ICARDA, Aleppo, Syria. other id: IFMA 3011. locality: Valley bottom, grassland, sandy loam over limestone and sandstone, 34km from Foug Jemaa to Bzou, Azilal. elevation: 1000m. remarks: 350mm 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-Sliman to Bouznika, Rabat, Ben Sliman. elevation: 150m. remarks: 480mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.

PI 516951 to 516978-continued

- PI 516967 donor id: GR 193. origin: Morocco. collected: July 05, 1983. other id: BWM 210683-0404. source: ICARDA, Aleppo, Syria. other id: IFMA 3090. locality: Hilly roadside, clay loam over limestone, 1 km from Sidi-Rahhal toward Demnate, Marrakesh. elevation: 550m. remarks: 200mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516968 donor id: GR 226. origin: Morocco. collected: July 05, 1983. other id: BWM 220683-0902. source: ICARDA, Aleppo, Syria. other id: IFMA 3143. locality: Level cropland, clay soil over limestone, 22km from Benahmad to Berrached, Settati. elevation: 400m. remarks: 400mm 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, Settati. 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 516973 donor id: GR 377. 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. remarks: Pods few. 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 516951 to 516978-continued

- PI 516975 donor id: GR 514. origin: Morocco. collected: July 19, 1983. locality: Roadside, loam soil, 7km S of Azrou on Road P 21. elevation: 1800m. remarks: Soil pH 6.5-7.0. Wild. Seed.
- PI 516976 donor id: GR 810. origin: Morocco. collected: August 07, 1983. locality: Doum vegetation site, clay soil, 12km S of Rommani on Road P 22. elevation: 600m. remarks: 500mm ppt/yr. Soil pH basic. Wild. Seed.
- PI 516977 donor id: GR 814. origin: Morocco. collected: August 07, 1983. locality: Doum vegetation site, clay soil, 24km S of Rommani on Road P 22. elevation: 700m. remarks: 550mm ppt/yr. Soil pH basic. 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 516979 donor id: GR 239. origin: Morocco. collected: July 05, 1983. other id: MG 130683-08. source: ICARDA, Aleppo, Syria. locality: Stony area, 10km from Azilal to Beni Mellal, Azilal. elevation: 1700m. remarks: 620mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- PI 516980 donor id: GR 242. origin: Morocco. collected: July 05, 1983. locality: 35km from Beni-Mellal, 4km from Ajourer. remarks: Donated by Mustapha Bounjemate, INRA. Originally from ICARDA, Aleppo, Syria. Wild. Seed.
- PI 516981 donor id: GR 246. origin: Morocco. collected: July 05, 1983. other id: MG 150683-08. source: ICARDA, Aleppo, Syria. locality: Woodland, undulating hills, clay loam over limestone, 8km from Tanannt to Bzou. elevation: 1200m. remarks: 500mm ppt/yr. Donated by Mustapha Bounjemate, INRA. Wild. Seed.
- 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 516983 donor id: GR 528. origin: Morocco. collected: July 20, 1983. locality: Sink hole, rocky loam soil, 3km W of jct of Roads P 3390 and P 21, 18km S of Azrou. elevation: 1875m. remarks: 800mm ppt/yr. Wild. Seed.

PI 516984 donor id: GR 536. 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. remarks: Plants scarce. Wild. Seed.

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.

donor id: GR 411. origin: Morocco. collected: July 12, 1983. locality: Forest Service Project in mountains, 17km N of Ouezzane. elevation: 260m. remarks: Area protected from grazing. Perennial. Wild. Seed.

PI 516986. *Melilotus italica* (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.

donor id: GR 853. origin: Morocco. collected: August 13, 1983. locality: SNDE farm, cracking heavy clay soil, 15km S of Tangiers off Road P 2, International Airport, Tangiers. elevation: 100m. remarks: Eaten by local livestock. Probably low coumarin type. Donated by INRA, Rabat. Wild. Seed.

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 516987-continued

donor id: GR 387. origin: Morocco. collected: July 11, 1983. locality: Within 700 year old Fort, Chechaouen. elevation: 610m. remarks: Area protected from grazing. Single plant. Annual. Wild. Seed.

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.

donor id: GR 623. origin: Morocco. collected: July 28, 1983. locality: Ormva Housing Area, Errachidia. remarks: Weedy potential. received as: *M. suffruticosa*. Perennial. Wild. Seed.

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.

PI 516989 donor id: GR 538. origin: Morocco. collected: July 20, 1983. locality: Very dry cedar forest, 12km W of jct of Roads P 3390 and P 21, S of Azrou. elevation: 1900m. Perennial. Wild. Seed.

PI 516990 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 516991 donor id: GR 578. origin: Morocco. collected: July 23, 1983. locality: 11km N of Tounfite, W of Midelt. elevation: 1850m. Wild. Seed.

PI 516992 donor id: GR 587. origin: Morocco. collected: July 23, 1983. locality: Between Boumia and Tounfite, W of Midelt. elevation: 1900m. Wild. Seed.

PI 516993 donor id: GR 687. origin: Morocco. collected: July 31, 1983. locality: Mountain meadow site, 70km N of Boulmane on Road 3444 near Msemrir, Ouarzazate. elevation: 2100m. 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.

**donor id:** GR 610. **origin:** Morocco. **collected:** July 28, 1983. **locality:** Wash area, 24km from Erachidia towards Goulmimia. **elevation:** 975m. **remarks:** Shrub, not very palatable. Wild. Seed.

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 516996 **donor id:** GR 33. **origin:** Morocco. **collected:** July 04, 1983. **locality:** Sand above beach, Mehdiya Plage, N of Rabat. **elevation:** 25m. Annual. Wild. Seed.

PI 516997 **donor id:** GR 504. **origin:** Morocco. **collected:** July 19, 1983. **locality:** Growing under cedars, Mischliffen, Road 3206, SE of Azrou. **elevation:** 1950m. Wild. Seed.

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 516998 donor id: GR 431. origin: Morocco. collected: July 13, 1983. locality: Cork oak forest, E of Ouezzane, near Izeren, Forest Service Station. elevation: 500m. Wild. Seed.

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.

donor id: GR 1. origin: Morocco. collected: July 03, 1983. locality: 20km from Sale to Meknes on Road P 1. Wild. Seed.

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 517002 donor id: GR 35. origin: Morocco. collected: July 04, 1983. locality: Sandy loam soil, 17km E of Rabat toward Meknes. received as: *O. isthmocarpus*. Wild. Seed.

PI 517003 donor id: GR 392. origin: Morocco. collected: July 12, 1983. locality: Forest Service area, Ain-Rami near Chechaouen. elevation: 560m. received as: *O. isthmocarpus*. Wild. Seed.



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 517006 **donor id:** GR 732. **origin:** Morocco. **collected:** August 02, 1983. **locality:** 153km S of Marrakech on Road S 501. **elevation:** 1350m. **remarks:** 400+mm precipitation zone. Wild. Seed.

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

**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-mtough. **elevation:** 350m. **remarks:** Average ppt. 400mm. Soil pH 7.2. Wild. Seed.

PI 517008 **donor id:** GR 388. **origin:** Morocco. **collected:** July 12, 1983. **locality:** Protected from grazing inside 700 year old fort, Chechaouen. **elevation:** 610m. Wild. Seed.

PI 517009 **donor id:** GR 396. **origin:** Morocco. **collected:** July 12, 1983. **locality:** Forest Service Nursery, protected from grazing, Ain Rami, near Chechaouen. **elevation:** 560m. Wild. Seed.

PI 517010 **donor id:** GR 428. **origin:** Morocco. **collected:** July 13, 1983. **locality:** Nursery plots, M'DA Forestry Nursery, 15km W of Ouezzane. **elevation:** 200m. **remarks:** Original collection from Derova. Seed.

PI 517007 to 517015-continued

- 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 517012 donor id: GR 471. origin: Morocco. collected: July 15, 1983. locality: 8km S of Tizi-Ouzli on Road S 312, N of Aknoul. elevation: 1225m. 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 517014 donor id: GR 791. origin: Morocco. collected: August 05, 1983. locality: 113km E of Marrakech on Road S 508. elevation: 900m. remarks: 500mm 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 517016 donor id: GR 656. origin: Morocco. origin institute: Office de L'Clerage (Livestock Service). collected: July 30, 1983. collector: A. Maghraoui. locality: 50km N of Ouarzazate at Ait-Benhaddou. Cultivated. Seed.
- PI 517017 donor id: GR 658. origin: Morocco. origin institute: Office de L'Clerage (Livestock Service). collected: July 30, 1983. locality: 50km N of Ouarzazate at Ait-Benhaddou. remarks: Donated by Abdelazziz Maghroui. Cultivated. Seed.
- PI 517018 donor id: GR 664. origin: Morocco. collected: July 30, 1983. locality: 70km N of Ouarzazate. remarks: Grown by Saoud Ahmad Agouime. 1979 seed crop. Cultivated. Seed.

PI 517016 to 517019-continued

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.

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.

PI 517021 **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.

PI 517022 **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.

PI 517023 **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.

PI 517024 **donor id:** GR 792. **origin:** Morocco. **collected:** August 05, 1983. **locality:** Haouz region, 30km E of Marrakech off Road P 31 at Ait-Ourir. **elevation:** 650m. **remarks:** 1982 seed crop. Grown by Hadg Faris 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.

**donor id:** GR 349. **origin:** Morocco. **collected:** July 09, 1983. **locality:** Near Errachidia (Ksar-es-souk). **remarks:** Shrub for rangeland. Donated by Dr. Glatzle, GTZ. Wild. Seed.

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 517028 **donor id:** GR 407. **origin:** Morocco. **collected:** July 12, 1983. **locality:** Across road from Forest Service Buildings, 19km N of Ouezzane at M.F. de Bellota. **elevation:** 150m. Perennial. Wild. Seed.

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.

**donor id:** GR 518. **origin:** Morocco. **collected:** July 19, 1983. **locality:** Cedar forest, 7km S of Azrou on Road P 21. **elevation:** 1800m. **remarks:** Opening in cedar forest, 7km S of Azrou on Road P 21. Wild. Seed.

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.

**donor id:** GR 535. **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 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.

**donor id:** GR 524. **origin:** Morocco. **collected:** July 19, 1983. **locality:** Cedar forest, protected area, 7km S of Azrou on Road P 21. **elevation:** 1800m. Wild. Seed.

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, clayloam soil over basalt, 10km from Azilal to Beni-Mellal, Jbel 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 517040 donor id: GR 14. 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. Wild. Seed.
- 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 517042 donor id: GR 27. origin: Morocco. collected: July 04, 1983. locality: Red-brown sandy loam, 19km from Rabat to Kenitra on Road P 2, Plage-des-Nations. 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 donor id: GR 16. origin: Morocco. collected: July 03, 1983. locality: Opening in *Quercus subra* forest, sandy to sandy loam soil, 20km E of Sale on Rabat-Meknes Road P 1. Wild. Seed.
- PI 517047 donor id: GR 277. origin: Morocco. collected: July 06, 1983. locality: Heavily grazed, drainage way near hwy, 15km SE of Tiflet on Road S 209. elevation: 300m. Wild. Seed.

PI 517046 to 517050-continued

PI 517048 donor id: GR 374. origin: Morocco. collected: July 11, 1983. locality: Roadside wheat field, 13km NE of Souk-El-Arba-du-Rharb near Tnine-Serafah on Road P 23. elevation: 75m. Wild. Seed.

PI 517049 donor id: GR 400. origin: Morocco. collected: July 12, 1983. locality: Roadside, 9km S of Chechaouen at intersection of Roads P 39 and P 28. elevation: 390m. Wild. Seed.

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.

donor id: GR 848. origin: Morocco. collected: August 10, 1983. locality: Institute National Recherche Agricole plot, Rabat. remarks: 1983 seed crop. Cultivated. Seed.

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.

donor id: GR 589. origin: Morocco. collected: July 23, 1983. locality: 15km E of Tounfite on Road 3422, 40km W of Midelt on Range Project "Arid". elevation: 1750m. remarks: Unpalatable. Has been used for making paper. Not used in pelleted feeds. Wild. Seed.



PI 517053. *Tetragonolobus maritimus* var. *siliquosus* (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 Boulmane on Road 3444 near Msemrir at Taghzout Ait Merghad, Ouarzazate. **elevation:** 2100m. **received as:** *T. siliquosus*. 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 517054 **donor id:** GR 253. **origin:** Morocco. **other id:** GTZ 6004 FAHL. **remarks:** Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.

PI 517055 **donor id:** GR 254. **origin:** Morocco. **other id:** GTZ 9364. **remarks:** Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.

PI 517056 **donor id:** GR 255. **origin:** Portugal. **other id:** GTZ 54. **remarks:** Donated by Mustapha Bounjemate, INRA. Cultivated. Seed.

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

PI 517058 **donor id:** GR 257. **origin:** United States. **other id:** GTZ 6454. Cultivated. Seed.

PI 517059 **donor id:** GR 258. **origin:** Greece. **other id:** GTZ 6007. Cultivated. Seed.

PI 517060 **donor id:** GR 259. **origin:** Portugal. **other id:** GTZ 233. Cultivated. Seed.

PI 517061 **donor id:** GR 762. **origin:** Morocco. **collected:** August 03, 1983. **locality:** Market, 13km E of Agadir on Road P 32, Ait-Melloul, Agadir. **remarks:** Bought from Fellah-Souss store. Cultivated. Seed.

PI 517054 to 517068-continued

- PI 517062 **donor id:** GR 763. **origin:** Morocco. **collected:** August 03, 1983. **locality:** 14km E of Agadir to Ouled-Taima, Ouled-Taima, Agadir. **remarks:** Ouled Taima store. Cultivated. Seed.
- PI 517063 **donor id:** GR 784. **origin:** Morocco. **collected:** August 04, 1983. **locality:** Souk El-Jadid market, 75km W of Marrakech on Road P 10, Chicaova, Marrakech. **remarks:** Haouz, hot desert type. Souk El-Jadid market. Cultivated. Seed.
- PI 517064 **donor id:** GR 802. **origin:** Morocco. **local name:** Berseem Demnate. **collected:** August 05, 1983. **locality:** Hot desert, 68km E of Marrakech on Road P 24, Tamalet, Marrakech. **elevation:** 600m. **remarks:** 1983 seed crop. Haouz irrigated type. Donated by El-Haonj Rahal Ben Maati. Cultivated. Seed.
- PI 517065 **donor id:** GR 803. **origin:** Morocco. **local name:** Berseem Demnate. **collected:** August 05, 1983. **locality:** Hot desert, 113km E of Marrakech off Road S 508, Demnate, Marrakech. **elevation:** 900m. **remarks:** 1982 seed crop. Irrigated type. Donated by Boutouche Mohammed ou Ali. Cultivated. Seed.
- PI 517066 **donor id:** GR 804. **origin:** Morocco. **local name:** Berseem Demnate. **collected:** August 05, 1983. **locality:** 13km W of Marrakech off Road S 508, Demnate, Marrakech. **elevation:** 900m. **remarks:** 1983 seed crop. Irrigated type. Donated by Maaziz Lahcen. Cultivated. Seed.
- PI 517067 **donor id:** GR 849. **origin:** Morocco. **collected:** August 10, 1983. **other id:** INRA 6385. **source:** Institute National Recherche Agricole. **remarks:** 1982 seed crop. Cultivated. Seed.
- PI 517068 **donor id:** GR 850. **origin:** Morocco. **collected:** August 10, 1983. **other id:** INRA 6454. **source:** Institute National Recherche Agricole. **remarks:** 1982 seed crop. Cultivated. Seed.

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-continued

- 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.

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.

PI 517077. *Trifolium bocconeii* 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

**donor id:** GR 2. **origin:** Morocco. **collected:** July 03, 1983. **locality:** Opening in Quercus subra forest, sandy to sandy loam soil, 20km from Sale on Rabat to Meknes Road P 1. Wild. Seed.

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 517078 **donor id:** GR 6. **origin:** Morocco. **collected:** July 03, 1983. **locality:** Opening in Quercus subra forest, 20km to Sale on Rabat to Meknes Road P 1. Wild. Seed.

PI 517079 **donor id:** GR 275. **origin:** Morocco. **locality:** Heavily grazed drainage way near hwy, 15km SE of Tiflet on Road S 209. **elevation:** 300m. **remarks:** Heavily grazed. Wild. Seed.

PI 517080 **donor id:** GR 300. **origin:** Morocco. **collected:** July 06, 1983. **locality:** Orchard, 2km N of Oulmes. **elevation:** 1200m. Wild. Seed.

PI 517081 **donor id:** GR 523. **origin:** Morocco. **collected:** July 19, 1983. **locality:** Protected area of cedar forest, 7km S of Azrou on Road P 21. **elevation:** 1800m. Wild. Seed.

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 **donor id:** GR 9. **origin:** Morocco. **collected:** July 03, 1983. **locality:** Quercus subra forest, sandy to sandy loam soil, neutral to slightly alkaline soil, 20km from Sale on Rabat-Meknes Road, P 1. Wild. Seed.

PI 517083 **donor id:** GR 307. **origin:** Morocco. **collected:** July 06, 1983. **locality:** Agr. Exp. Station, 2km E of Oulmes. **elevation:** 1200m. **remarks:** 700mm ppt/yr. Wild. Seed.

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 517085 donor id: GR 423. origin: Morocco. collected: July 12, 1983. locality: 25km SE of Chechaouen, 2km S of Bab-Taza. elevation: 850m. 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 donor id: GR 279. origin: Morocco. collected: July 06, 1983. locality: Heavily grazed drainage way near highway, 15km SE of Tiflet on Road S 209. elevation: 300m. Wild. Seed.
- PI 517089 donor id: GR 305. origin: Morocco. collected: July 06, 1983. locality: Along dry stream bed, 2km E of Oulmes. elevation: 1250m. Wild. Seed.
- PI 517090 donor id: GR 314. origin: Morocco. collected: July 06, 1983. locality: Wet spring, 3km S of Oulmes on Road 2516. Wild. Seed.

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-Mtounh, 60km SE of El Jadida on Road 1347. elevation: 350m. remarks: 400mm ppt/yr. Soil pH 7.2. Wild. Seed.
- PI 517092 donor id: GR 347. origin: Morocco. collected: July 08, 1983. locality: Roadside, 58km SE of El-Jadida on Road P 1347, Khemis-Mtoun. elevation: 350m. 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 517094 donor id: GR 369. origin: Morocco. collected: July 10, 1983. locality: Wet basin near coast, 7 km E of Moulay-Bousselham, 89km N of Kenitra. elevation: 10m. 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 517096 donor id: GR 425. origin: Morocco. collected: July 12, 1983. locality: 25km SE of Chechaouen, 2km S of Bab Taza. elevation: 850m. remarks: Arid site for this species. Wild. Seed.
- PI 517097 donor id: GR 447. origin: Morocco. collected: July 14, 1983. locality: Edge of spring, 52km E of Chechaouen on Road P 39. elevation: 1200m. remarks: Nodule sample obtained. Wild. Seed.
- PI 517098 donor id: GR 456. origin: Morocco. collected: July 14, 1983. locality: Near spring, W side of Pass, 21km W of Ketama, Bab-Besen area on Road P 39. elevation: 1600m. Wild. Seed.
- PI 517099 donor id: GR 474. origin: Morocco. collected: July 15, 1983. locality: Drainage way E side of road, S of Tizi-Ouzli on Road S 312, N of Aknoul. elevation: 1175m. 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 517101 **donor id:** GR 547. **origin:** Morocco. **collected:** July 20, 1983. **locality:** Wet sand along lake, Dayet Aaoua, 17km N of Ifrane on N side of lake. **elevation:** 1500m. Wild. Seed.
- PI 517102 **donor id:** GR 580. **origin:** Morocco. **collected:** July 23, 1983. **locality:** Boumia-Tounsate-Imichil Road, W of Midelt. **remarks:** Composite from several collection sites. Wild. Seed.
- PI 517103 **donor id:** GR 652. **origin:** Morocco. **collected:** July 30, 1983. **locality:** Ourzazate Basin. **elevation:** 1200m. Wild. Seed.
- 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 517105 **donor id:** GR 11. **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 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 517107 **donor id:** GR 512. **origin:** Morocco. **collected:** July 19, 1983. **locality:** 7km S of Azrou on Road P 21. **elevation:** 1800m. **remarks:** Soil pH 6.5-7.0. 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 Thine- 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 517121 to 517124-continued

- PI 517122 donor id: GR 454. origin: Morocco. collected: July 14, 1983. locality: Near spring on W side of pass, 21km W of Ketama in Bab-Besen area on Road P 39. elevation: 1600m. 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 517126 donor id: GR 391. origin: Morocco. collected: July 12, 1983. locality: Forest Service nursery area, Ain-Rami near Chechaouen. elevation: 560m. Wild. Seed.
- PI 517127 donor id: GR 394. origin: Morocco. collected: July 12, 1983. locality: Forest Service nursery area, dry site, Ain-Rami near Chechaouen. elevation: 560m. Wild. Seed.
- PI 517128 donor id: GR 455. origin: Morocco. collected: July 14, 1983. locality: Near spring on W side of pass, 21km W of Ketama in Bab-Besen area on Road P 39. elevation: 1600m. 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 517131 donor id: GR 260. origin: Portugal. other id: GTZ 55. Cultivated. Seed.
- PI 517132 donor id: GR 261. origin: Portugal. other id: GTZ 9367. Cultivated. Seed.
- PI 517133 donor id: GR 262. origin: Denmark. other id: GTZ 8914. Cultivated. Seed.
- PI 517134 donor id: GR 263. origin: United States. other id: GTZ 8449. Cultivated. Seed.
- PI 517135 donor id: GR 264. origin: Hungary. other id: GTZ 8029. Cultivated. Seed.
- PI 517136 donor id: GR 265. origin: Morocco. other id: GTZ 6979. Cultivated. Seed.
- PI 517137 donor id: GR 266. origin: Morocco. other id: GTZ 6209. remarks: Best population in GTZ trials. Cultivated. Seed.
- PI 517138 donor id: GR 267. origin: Portugal. other id: GTZ 6225. Cultivated. Seed.
- PI 517139 donor id: GR 268. origin: Portugal. other id: GTZ 6221. Cultivated. Seed.
- PI 517140 donor id: GR 269. origin: Morocco. other id: GTZ 6205. remarks: Second best in GTZ trials. Cultivated. Seed.
- PI 517141 donor id: GR 270. origin: Portugal. other id: GTZ 6026. Seed.
- PI 517142 donor id: GR 283. origin: Morocco. collected: July 06, 1983. locality: Heavily grazed drainage way near hwy, 15km SE of Tiflet. elevation: 300m. Wild. Seed.
- PI 517143 donor id: GR 360. origin: Morocco. collected: July 10, 1983. locality: Along coast in rocky area, sandy soil, 20km S of Rabat, Temara-Plage on Road S 222. elevation: 15m. Wild. Seed.
- PI 517144 donor id: GR 421. origin: Morocco. collected: July 12, 1983. locality: 24km SE of Chechaouen, 1 km S of Bab-Taza. elevation: 850m. Wild. Seed.

PI 517131 to 517145-continued

PI 517145    **donor id:** GR 558.    **origin:** Morocco.    **collected:** July 20, 1983.    **locality:** On dry slope near lake, Dayet-Aaoua, 17km N of Ifrane on SE end of lake.    **elevation:** 1500m. Wild. Seed.

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 517147    **donor id:** GR 280.    **origin:** Morocco.    **collected:** July 06, 1983.    **locality:** Heavily grazed drainage way near hwy, 15km SE of Tiflet on Road S 209.    **elevation:** 300m. Wild. Seed.

PI 517148    **donor id:** GR 282.    **origin:** Morocco.    **collected:** July 06, 1983.    **locality:** Heavily grazed drainage way near hwy, 15km SE of Tiflet.    **elevation:** 300m. Wild. Seed.

PI 517149    **donor id:** GR 298.    **origin:** Morocco.    **collected:** July 06, 1983.    **locality:** Understory plant in oat field, 68km SE of Tiflet.    **elevation:** 1000m. Wild. Seed.

PI 517150    **donor id:** GR 521.    **origin:** Morocco.    **collected:** July 19, 1983.    **locality:** Deferred area in cedar forest, 7km S of Azrou on Road P 21.    **elevation:** 1800m. Annual. Wild. Seed.

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 **donor id:** GR 34. **origin:** Morocco. **collected:** July 04, 1983. **locality:** Sandy loam soil, 17km from Rabat toward Meknes. Wild. Seed.

PI 517153 **donor id:** GR 399. **origin:** Morocco. **collected:** July 12, 1983. **locality:** Roadside, 9km S of Chechaouen at intersection of P 39 and P 28. **elevation:** 390m. Wild. Seed.

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 **donor id:** GR 301. **origin:** Morocco. **collected:** July 06, 1983. **locality:** Roadside, near orchard, 2km N of Oulmes. **elevation:** 1200m. **remarks:** Abundant under Eucalyptus trees. Wild. Seed.

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 517156 **donor id:** GR 317. **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 517154 to 517179-continued

- PI 517157 donor id: GR 373. origin: Morocco. collected: July 11, 1983. locality: Roadside bank, 2km N of Soul-El-Arba-du-Rharb on Road P 2. elevation: 50m. remarks: Soil pH 6.6. Wild. Seed.
- PI 517158 donor id: GR 390. origin: Morocco. collected: July 12, 1983. locality: Forest Service nursery area, Ain-Rami near Chechaouen. elevation: 560m. Wild. Seed.
- PI 517159 donor id: GR 403. origin: Morocco. collected: July 12, 1983. locality: Middle of weed field, Forest Service nursery area, Ain-Rami near Chechaouen. elevation: 150m. remarks: 800mm ppt/yr. Colony aggressive. Wild. Seed.
- PI 517160 donor id: GR 404. origin: Morocco. collected: July 12, 1983. locality: Along ditch in weed field, Forest Service nursery area, N of Ouezzane at M.F. de Bellota. elevation: 150m. remarks: 800mm ppt/yr. Wild. Seed.
- PI 517161 donor id: GR 424. origin: Morocco. collected: July 12, 1983. locality: 25km SE of Chechaouen, 2km S of Bab-Taza. elevation: 850m. remarks: 1100mm ppt/yr. Wild. Seed.
- PI 517162 donor id: GR 433. origin: Morocco. collected: July 13, 1983. locality: Under Aleppo Pine, E of Ouezzane at Izeren Forest Service Station. elevation: 500m. remarks: Ecotype A. Wild. Seed.
- PI 517163 donor id: GR 434. origin: Morocco. collected: July 13, 1983. locality: Under Eucalyptus trees, E of Ouezzane at Izeren Forest Service Station. elevation: 510m. remarks: Ecotype B. Wild. Seed.
- PI 517164 donor id: GR 435. origin: Morocco. collected: July 13, 1983. locality: Heavily grazed open area, E of Ouezzane at Izeren Forest Service Station. elevation: 500m. remarks: Ecotype C. Wild. Seed.
- PI 517165 donor id: GR 436. 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 517166 donor id: GR 445. origin: Morocco. collected: July 14, 1983. locality: 5km E of junction of Roads P 28 and P 39, S of Chechaouen. elevation: 460m. Wild. Seed.

PI 517154 to 517179-continued

- PI 517167 donor id: GR 448. origin: Morocco. collected: July 14, 1983. locality: With ferns in heavily grazed area, 51km E of Chechaouen on Road P 39. elevation: 1300m. remarks: 1200-1500mm ppt/yr. Wild. Seed.
- 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 517170 donor id: GR 494. origin: Morocco. collected: July 17, 1983. locality: Roadside, rocky loam, 3km S of Azrou on Road P 24. elevation: 1250m. remarks: 800mm ppt/yr. Wild. Seed.
- PI 517171 donor id: GR 508. origin: Morocco. collected: July 19, 1983. locality: Under cedars in protected area, loam soil, 7km S of Azrou on Road P 21. elevation: 1775-1800m. remarks: 1000mm ppt/yr. Soil pH 6.5-7.0. Wild. Seed.
- PI 517172 donor id: GR 519. origin: Morocco. collected: July 19, 1983. locality: In grass sod, deferred area near cedar trees, 7km S of Azrou on Road P 21. elevation: 1800m. 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 517174 donor id: GR 567. origin: Morocco. collected: July 22, 1983. locality: Roadside, 28km N of Khenifra on Road P 24. elevation: 1200m. remarks: 700mm ppt/yr. Wild. Seed.
- PI 517175 donor id: GR 806. origin: Morocco. collected: August 07, 1983. locality: Cork oak forest, rock loam soil, 9km S of Rommani on Road P 22. elevation: 500m. remarks: Soil basic pH. 500mm ppt/yr. Small seed supply. Wild. Seed.

PI 517154 to 517179-continued

- PI 517176 **donor id:** GR 809. **origin:** Morocco. **collected:** August 07, 1983. **locality:** Doum vegetation site, 12km S of Rommani on Road P 22. **elevation:** 600m. **remarks:** 500mm ppt/yr. Soil basic pH. Wild. Seed.
- PI 517177 **donor id:** GR 812. **origin:** Morocco. **collected:** August 07, 1983. **locality:** Doum vegetation site, clay soil, 19km S of Rommani on Road P 22. **elevation:** 675m. **remarks:** 500+mm ppt/yr. Soil basic pH. Wild. Seed.
- 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 517180 **donor id:** GR 4. **origin:** Morocco. **collected:** July 03, 1983. **locality:** Opening in *Quercus subra* forest, sandy soil, 20km to Sale on Rabat to Meknes Road P 1. Annual. Wild. Seed.
- PI 517181 **donor id:** GR 273. **origin:** Morocco. **collected:** July 06, 1983. **locality:** Heavily grazed drainage way near hwy, 15km SE of Tiflet on Road S 209. **elevation:** 300m. Annual. Wild. Seed.
- PI 517182 **donor id:** GR 284. **origin:** Morocco. **collected:** July 06, 1983. **locality:** Heavily grazed drainage way near hwy, 15km SE of Tiflet on Road S 209. **elevation:** 300m. Annual. Wild. Seed.
- PI 517183 **donor id:** GR 309. **origin:** Morocco. **collected:** July 06, 1983. **locality:** 3km S of Oulmes on Road 2516. Annual. Wild. Seed.
- PI 517184 **donor id:** GR 357. **origin:** Morocco. **collected:** July 10, 1983. **locality:** Along coast, rocky area with sandy soil, 20km S of Rabat, Temara-Plage on Road 222. **elevation:** 15m. Annual. Wild. Seed.



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.

**donor id:** GR 624. **origin:** Morocco. **collected:** July 28, 1983. **locality:** 44km W of Errachidia on P 32, Goulmima, Errachidia. **elevation:** 1000m. **remarks:** <150mm ppt/yr. Annual. Wild. Seed.

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.

**donor id:** GR 510. **origin:** Morocco. **collected:** July 19, 1983. **locality:** Roadside near cedars, 7km S of Azrou on Road P 21. **elevation:** 1800m. Annual. Wild. Seed.

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.

**donor id:** GR 550. **origin:** Morocco. **collected:** July 20, 1983. **locality:** 28km N of Ifrane near jct of Roads 4627 and 4629. **elevation:** 1700m. **remarks:** Local population with several head types. **received as:** *T. vulgare*. Cultivated. Seed.

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.

**donor id:** GR 296. **origin:** Morocco. **locality:** 1 km S of Tiddas. **elevation:** 350m. **remarks:** 500mm ppt/yr. Cultivated. Seed.

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.

**donor id:** GR 408. **origin:** Morocco. **collected:** July 12, 1983. **locality:** Field, across road from Forest Service Buildings, 19km N of Ouezzane at M.F. de Bellota. **elevation:** 150m. **remarks:** Small seeded, bell bean type. Cultivated. Seed.

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.

**donor id:** GR 845. **origin:** Morocco. **collected:** August 10, 1983. **other id:** INRA 63. **source:** Institute National Recherche Agricole.. **remarks:** 1982 seed crop. Cultivated. Seed.

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 517191 **donor id:** GR 359. **origin:** Morocco. **collected:** July 10, 1983. **locality:** Along coast, rocky area, 20km S of Rabat, Temara Plage on Road 222. **elevation:** 15m. Annual. Wild. Seed.

PI 517192 **donor id:** GR 409. **origin:** Morocco. **collected:** July 11, 1983. **locality:** Forest Service Project, mountains, 17km N of Ouezzane. **elevation:** 260m. Cultivated. Seed.

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. Kahurananga, 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 517197 to 517201-continued

PI 517199 donor id: ILCA 7666. origin: Ethiopia. collected: January 17, 1983. locality: Clay soil, Debay Tilatgne, Bichena. latitude: 10 deg. 30 min. N. longitude: 38 deg. 01 min. E. elevation: 2500m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1200mm. Perennial. Wild. Seed.

PI 517200 donor id: ILCA 8553. origin: Ethiopia. Wild. Seed.

PI 517201 donor id: ILCA 10887. origin: Ethiopia. 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.

donor id: ILCA 7086. origin: UNKNOWN. cultivar: MAKU.  
remarks: Obtained from Townsend Company, UK. Annual.  
Cultivar. Seed.

PI 517203. Lotus sp. FABACEAE

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

donor id: ILCA 7825. origin: Ethiopia. collected: January 28, 1983. collector: S. Mengistu, Y. Hassen.  
locality: Clay soil, Gudalafto, Yeju. latitude: 11 deg. 45 min. N. longitude: 39 deg. 37 min. E. elevation: 2880m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Wild. Seed.

PI 517204. Lupinus albus L. FABACEAE White lupine

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

donor id: ILCA 6286. origin: UNKNOWN. Wild. Seed.

PI 517205. Lupinus sp. FABACEAE

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

donor id: ILCA 7522. origin: Ethiopia. Wild. Seed.

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 517207 donor id: ILCA 7797. origin: Ethiopia. Wild. Seed.

PI 517208 donor id: ILCA 7813. origin: Ethiopia. collected:  
January 28, 1983. collector: S. Mengistu, Y. Hassen, A.  
Ahmed. locality: Clay soil, Gubalafto, Yeju. latitude:  
11 deg. 49 min. N. longitude: 39 deg. 34 min. E.  
elevation: 2900m. remarks: Plants herbaceous, creeping.  
Annual rainfall 1000mm. Soil pH 8.0. Perennial. Wild.  
Seed.

PI 517209 donor id: ILCA 7817. origin: Ethiopia. collected:  
January 28, 1983. collector: S. Mengistu, Y. Hassen, A.  
Ahmed. locality: Sandy soil, Gubalafto, Yeju. latitude:  
11 deg. 47 min. E. longitude: 39 deg. 35 min. E.  
elevation: 2090m. remarks: Plants herbaceous, 20cm tall.  
Annual rainfall 1000mm. Perennial. Wild. Seed.

PI 517210 donor id: ILCA 7829. origin: Ethiopia. Wild. Seed.

PI 517211 donor id: ILCA 7871. origin: Ethiopia. collected:  
January 31, 1983. collector: S. Mengistu, Y. Hassen, A.  
Ahmed. locality: Sandy soil, Adela Wedib, Desse Zuriya.  
latitude: 11 deg. 17 min. N. longitude: 39 deg. 30 min.  
E. elevation: 2460m. remarks: Plants herbaceous, 50cm  
tall. Annual rainfall 1000mm. Annual. Wild. Seed.

PI 517212 donor id: ILCA 7889. origin: Ethiopia. Wild. Seed.

PI 517213 donor id: ILCA 10214. origin: Ethiopia. collector: S.  
Mengistu. locality: Sandy soil, near oat farm on right  
side of road, 460.8km from Addis Ababa towards towards  
Ginir 25.4km next to Robe, Goba, Mendoyu, Bale.  
latitude: 07 deg. 18 min. N. longitude: 40 deg. 09 min.  
E. elevation: 2480m. remarks: Plants herbaceous, 25cm  
tall. Annual rainfall 950mm. Annual. Wild. Seed.

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 517214 donor id: ILCA 7636. origin: Ethiopia. collected:  
January 15, 1983. collector: S. Mengistu, Y. Hassen, A.  
Ahmed. locality: Clay soil, 1 km from forks of road  
Addis/Dejen and Dejen/Motta towards Mota via Dejen, 239km  
from Addis Ababa, Dejen, Debre Markos. latitude: 10 deg.  
14 min. N. longitude: 38 deg. 08 min. E. elevation:  
2500m. remarks: Plants herbaceous, 45cm tall. Annual  
rainfall 1000mm. Wild. Seed.

PI 517215 donor id: ILCA 7816. origin: Ethiopia. Wild. Seed.

PI 517216 donor id: ILCA 7866. origin: Ethiopia. collected:  
January 31, 1983. collector: S. Mengistu, Y. Hassen, A.  
Ahmed. locality: Clay soil, Adela Wedib, Desse Zuriya.  
latitude: 11 deg. 17 min. N. longitude: 39 deg. 31 min.  
E. elevation: 2640m. remarks: Plants herbaceous, 50cm  
tall. Annual rainfall 1100mm. Annual. Wild. Seed.

PI 517217 donor id: ILCA 8487. origin: Ethiopia. collected:  
December 08, 1982. collector: L. Akundabweni, S.  
Mengistu. locality: Clay soil, Becho, Chebo & Gurage.  
latitude: 08 deg. 43 min. N. longitude: 38 deg. 16 min.  
E. elevation: 2120m. remarks: Plants herbaceous, 40cm  
tall. Annual rainfall 1000mm. Annual. Wild. Seed.

PI 517218 donor id: ILCA 10136. origin: Ethiopia. Wild. Seed.

PI 517219 donor id: ILCA 10150. origin: Ethiopia. collector: S.  
Mengistu. locality: Cropland near hill, across from  
bottom land under wheat cultivation. Loam soil, 16.4km  
next to Holeta, Addis Alem, Menagesha, Shewa. latitude:  
09 deg. 12 min. N. longitude: 38 deg. 27 min. E.  
elevation: 2650m. remarks: Plants herbaceous, 60cm tall.  
Annual rainfall 1500mm. Annual. Wild. Seed.

PI 517220 donor id: ILCA 10212. origin: Ethiopia. Wild. Seed.

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 donor id: ILCA 5659. origin: Syria. origin institute:  
ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFMP  
73. other id: ILCA 5657. Perennial. Wild. Seed.

PI 517221 to 517254-continued

- PI 517222 donor id: ILCA 5661. origin: Syria. origin institute: ICARDA, P.O. 5466, Aleppo. origin institute id: IFMP 92. other id: ILCA 5659. Perennial. Wild. Seed.
- PI 517223 donor id: ILCA 5662. origin: UNKNOWN. remarks: Obtained from ICARDA. Wild. Seed.
- PI 517224 donor id: ILCA 5663. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFMP 97. other id: ILCA 5661. Perennial. Wild. Seed.
- PI 517225 donor id: ILCA 5664. origin: Syria. origin institute: ICARDA, P.O. 5466, Aleppo. origin institute id: IFMP 103. other id: ILCA 5662. Perennial. Wild. Seed.
- PI 517226 donor id: ILCA 5665. origin: UNKNOWN. remarks: Obtained from ICARDA. Wild. Seed.
- PI 517227 donor id: ILCA 5666. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFMP 156. other id: ILCA 5664. Perennial. Wild. Seed.
- PI 517228 donor id: ILCA 5667. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFMP 158. other id: ILCA 5665. Perennial. Wild. Seed.
- PI 517229 donor id: ILCA 5668. origin: UNKNOWN. remarks: Obtained from ICARDA. Wild. Seed.
- PI 517230 donor id: ILCA 5669. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFMP 219. other id: ILCA 5667. Perennial. Wild. Seed.
- PI 517231 donor id: ILCA 5670. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFMP 250. other id: ILCA 5668. Perennial. Wild. Seed.
- PI 517232 donor id: ILCA 5673. origin: Cyprus. remarks: Locally grown type. Obtained from ICARDA. Cultivated. Seed.
- PI 517233 donor id: ILCA 5674. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFMP 503. other id: ILCA 5672. Perennial. Wild. Seed.
- PI 517234 donor id: ILCA 5675. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFMP 504. other id: ILCA 5673. Perennial. Wild. Seed.
- PI 517235 donor id: ILCA 5676. origin: UNKNOWN. remarks: Obtained from ICARDA. Wild. Seed.

PI 517221 to 517254-continued

- PI 517236 donor id: ILCA 5677. origin: Ethiopia. origin institute: ICARDA, P.O. BOX 5466, Aleppo. origin institute id: IFMP 510. other id: ILCA 5675. Wild. Seed.
- PI 517237 donor id: ILCA 5678. origin: Lebanon. other id: ILCA 5676. other id: IFMP 597. source: ICARDA, Aleppo, Syria. remarks: Locally grown type. Wild. Seed.
- PI 517238 donor id: ILCA 5679. origin: Syria. other id: IFMP 598. source: ICARDA, Aleppo, Syria. remarks: Locally grown type. Cultivated. Seed.
- PI 517239 donor id: ILCA 5680. origin: UNKNOWN. cultivar: MOOPA. other id: ILCA 5678. other id: IFMP 804. source: ICARDA, Aleppo, Syria. Cultivar. Seed.
- PI 517240 donor id: ILCA 5681. origin: United States. cultivar: CUF 101. other id: ILCA 5679. other id: IFMP 805. source: ICARDA, Aleppo, Syria. Cultivar. Seed.
- PI 517241 donor id: ILCA 6753. origin: Italy. origin institute: FAO-PNUD, Rome. cultivar: CALIVERDE. local name: Osativa Caliver. Perennial. Cultivar. Seed.
- PI 517242 donor id: ILCA 6754. origin: United States. cultivar: SONORA. remarks: Obtained from FAO-PNUD. Cultivar. Seed.
- PI 517243 donor id: ILCA 7321. origin: Portugal. other id: EMP 2752. locality: Elvas. Perennial. Wild. Seed.
- PI 517244 donor id: ILCA 7322. origin: Algeria. remarks: Obtained from FAO. Perennial. Cultivated. Seed.
- PI 517245 donor id: ILCA 7369. origin: Yemen Arab Republic. cultivar: KOHLI. locality: Dhamar. Cultivar. Seed.
- PI 517246 donor id: ILCA 7370. origin: Yemen Arab Republic. cultivar: BANDI. locality: Dhamar. elevation: 2400m. remarks: Annual rainfall 343mm. Cultivar. Seed.
- PI 517247 donor id: ILCA 9138. origin: Denmark. origin institute: Danish Plant Breeding Institute. cultivar: VEKO. Cultivar. Seed.
- PI 517248 donor id: ILCA 9180. origin: Denmark. cultivar: PRESCOT. Perennial. Cultivar. Seed.
- PI 517249 donor id: ILCA 9234. origin: Australia. origin institute: Dept. of Agriculture. cultivar: SIRIVER. Perennial. Cultivar. Seed.



PI 517221 to 517254-continued

- PI 517250 donor id: ILCA 9235. origin: Australia. origin  
institute: Dept. of Agriculture. cultivar: WAKEFIELD.  
Cultivar. Seed.
- PI 517251 donor id: ILCA 9236. origin: Australia. origin  
institute: Dept. of Agriculture. cultivar: HUNTERFIELD.  
Perennial. Cultivar. Seed.
- PI 517252 donor id: ILCA 9237. origin: Australia. origin  
institute: Dept. of Agriculture. cultivar: SHEFFIELD.  
Perennial. Cultivar. Seed.
- PI 517253 donor id: ILCA 9238. origin: Australia. origin  
institute: Dept. of Agriculture. cultivar: SPRINGFIELD.  
Cultivar. Seed.
- PI 517254 donor id: ILCA 9239. origin: Australia. origin  
institute: Dept. of Agriculture. cultivar: TRIFECTA.  
Perennial. Cultivar. Seed.

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.

donor id: ILCA 6501. origin: Ethiopia. locality: ILCA  
Station at Shola. Annual. Wild. Seed.

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 517257 donor id: ILCA 6921. origin: UNKNOWN. cultivar: CYPRUS.  
remarks: Obtained from Kimberly Seeds Ltd., 51-King  
Edward Rd., Osborne Park, 6017, Western Australia.  
Annual. Cultivar. 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 donor id: ILCA 7128. origin: UNKNOWN. remarks: Obtained  
from France, FAO-SIDA. Perennial. Wild. Seed.

PI 517258 to 517259-continued

PI 517259 donor id: ILCA 7386. origin: UNKNOWN. cultivar: BARMIDI. remarks: Obtained from the Netherlands. Cultivar. Seed.

PI 517260. *Trifolium abyssinicum* D. Heller FABACEAE

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

donor id: ILCA 10197. origin: Ethiopia. received as: *T. calocephalum*. Annual. Wild. Seed.

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.

donor id: ILCA 10897. origin: Soviet Union. remarks: Obtained from CSIRO, Canberra, Australia. Perennial. Wild. Seed.

PI 517262 to 517294. *Trifolium baccarinii* Chiov. FABACEAE

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

PI 517262 donor id: ILCA 6294. origin: Ethiopia. other id: ILCA 5764. source: Orig. ILCA no. locality: Clay soil, ILCA research station, Debre Berhan, Shewa. latitude: 09 deg. 31 min. N. longitude: 39 deg. 28 min. E. elevation: 2780m. remarks: Plants herbaceous. Annual rainfall 1000mm. Soil pH 5.0. Annual. Wild. Seed.

PI 517263 donor id: ILCA 8105. origin: Ethiopia. collected: November 12, 1982. collector: L. Akundaweni, S. Mengistu. locality: Clay loam, Tiyo, Chilalo, Arsi. latitude: 07 deg. 57 min. E. longitude: 39 deg. 08 min. W. elevation: 2170m. remarks: Plants herbaceous, 15-20cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517264 donor id: ILCA 8147. origin: Ethiopia. collected: November 14, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Limu & Bilbilo, Chilalo, Arsi. latitude: 07 deg. 23 min. N. longitude: 39 deg. 16 min. E. elevation: 2850m. remarks: Plants herbaceous, 15-20cm tall. Annual rainfall 950mm. Soil pH 4.0. Annual. Wild. Seed.

PI 517262 to 517294-continued

- PI 517265 donor id: ILCA 8152. origin: Ethiopia. Annual. Wild. Seed.
- PI 517266 donor id: ILCA 8158. origin: Ethiopia. collected: November 14, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Gedebe, Chilalo, Arsi. latitude: 07 deg. 05 min. N. longitude: 39 deg. 11 min. E. elevation: 2300m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 700mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517267 donor id: ILCA 8161. origin: Ethiopia. collected: November 14, 1982. collector: L. Ankundabweni, S. Mengistu. locality: Clay loam, Dodola, Genale, Bale. latitude: 06 deg. 59 min. N. longitude: 39 deg. 09 min. E. elevation: 2330m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 900mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517268 donor id: ILCA 8164. origin: Ethiopia. Annual. Wild. Seed.
- PI 517269 donor id: ILCA 8165. origin: Ethiopia. collected: November 15, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Dodola, Genale, Bale. latitude: 06 deg. 59 min. N. longitude: 39 deg. 16 min. E. elevation: 2300m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 900mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517270 donor id: ILCA 8177. origin: Ethiopia. collected: November 15, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sandy loam, Dodola, Genale, Bale. latitude: 07 deg. 02 min. N. longitude: 39 deg. 33 min. E. elevation: 2860m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517271 donor id: ILCA 8186. origin: Ethiopia. Annual. Wild. Seed.
- PI 517272 donor id: ILCA 8192. origin: Ethiopia. collected: November 16, 1982. collector: L. Akundabweni, S. Mengistu. locality: Silty loam, Sinana, Mendayu, Welo. latitude: 07 deg. 07 min. N. longitude: 39 deg. 52 min. E. elevation: 2630m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517273 donor id: ILCA 8256. origin: Ethiopia. Annual. Wild. Seed.

PI 517262 to 517294-continued

- PI 517274 donor id: ILCA 8274. origin: Ethiopia. collected: November 17, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sandy loam, Shashemane, Haycoch & Butajira, Shewa. latitude: 07 deg. 10 min. N. longitude: 38 deg. 40 min. E. elevation: 2090m. remarks: Plants herbaceous, 15 to 20cm tall. Annual rainfall 1200mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517275 donor id: ILCA 8279. origin: Ethiopia. collected: November 18, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sandy loam, Shashemane, Haycoch & Butajira, Shewa. latitude: 07 deg. 12 min. N. longitude: 38 deg. 36 min. E. elevation: 1850m. remarks: Plants herbaceous, 15-20cm tall. Annual rainfall 1200mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517276 donor id: ILCA 8288. origin: Ethiopia. Annual. Wild. Seed.
- PI 517277 donor id: ILCA 8585. origin: Ethiopia. Annual. Wild. Seed.
- PI 517278 donor id: ILCA 8595. origin: Ethiopia. Annual. Wild. Seed.
- PI 517279 donor id: ILCA 8633. origin: Ethiopia. Annual. Wild. Seed.
- PI 517280 donor id: ILCA 9707. origin: Ethiopia. collected: November 04, 1983. collector: S. Mengistu. collector id: SM-6-10-C. locality: Clay loam, 170km from Addis Ababa towards Debre Markos, 15km before Goha Tsion, Abu Berdaba village, plain field on right side of road, Jarso, Selale, Shewa. latitude: 09 deg. 55 min. N. longitude: 38 deg. 20 min. E. elevation: 2560m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517281 donor id: ILCA 10005. origin: Ethiopia. collected: November 18, 1983. collector: S. Mengistu. collector id: SM-7-21-A. locality: Sandy soil, 40.6km before Bonga and 10.7km before Gojeb river, near Tishe river valley, Chekorsa, Jimma, Kefa. latitude: 07 deg. 28 min. N. longitude: 36 deg. 26 min. E. elevation: 1460m. remarks: Plants herbaceous, 35cm tall. Annual rainfall 1500mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517282 donor id: ILCA 10009. origin: Ethiopia. Annual. Wild. Seed.

PI 517262 to 517294-continued

- PI 517283 donor id: ILCA 10023. origin: Ethiopia. collected: November 19, 1983. collector: S. Mengistu. collector id: SM-7-27-B. locality: Loam, hilly area on left side of road, 443.8km from Addis Ababa towards Bedele via Jimma, 12.8km before Gecha, Jibro, Gechi, Buno Bedele, Kefa. latitude: 08 deg. 17 min. N. longitude: 36 deg. 26 min. E. elevation: 2250m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1800mm. Soil pH 5.4. Annual. Wild. Seed.
- PI 517284 donor id: ILCA 10027. origin: Ethiopia. Annual. Wild. Seed.
- PI 517285 donor id: ILCA 10028. origin: Ethiopia. collected: November 19, 1983. collector: S. Mengistu. collector id: SM-7-29-A. locality: Sandy, rolling slope, 466.6km from Addis Ababa towards Bedele via Jimma, 5.6km next to Geche, Denjawaji, Gechi, Buno Bedele, Kefa. latitude: 98 deg. 23 min. N. longitude: 36 deg. 23 min. E. elevation: 2050m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 2000mm. Soil pH 5.4. Annual. Wild. Seed.
- PI 517286 donor id: ILCA 10036. origin: Ethiopia. Annual. Wild. Seed.
- PI 517287 donor id: ILCA 10061. origin: Ethiopia. collected: November 13, 1983. collector: S. Mengistu. collector id: SM-8-03-B. locality: Wheat field near small stream, loam, 182km from Addis Ababa towards Bale Goba via Asela, 6.9km next to town of Asela, Tiyo, Chilalo. latitude: 07 deg. 53 min. N. longitude: 39 deg. 07 min. E. elevation: 2520m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517288 donor id: ILCA 10169. origin: Ethiopia. Annual. Wild. Seed.
- PI 517289 donor id: ILCA 10176. origin: Ethiopia. collected: December 14, 1983. collector: S. Mengistu. collector id: SM-8-07-C. locality: Left side of road, foot of hill, clay, 241km from Addis Ababa towards Bale via Asela, 4.4km next to Bekoji, Digelu & Tijo, Chilalo, Arsi. latitude: 07 deg. 30 min. N. longitude: 39 deg. 15 min. E. elevation: 2890m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Annual. Wild. Seed.

PI 517262 to 517294-continued

- PI 517290 **donor id:** ILCA 10183. **origin:** Ethiopia. **collected:** December 15, 1983. **collector:** S. Mengistu. **collector id:** SM-8-09-A. **locality:** Wheat farm, near small village, clay, 257.6km from Addis Ababa towards Bale Goba via Asela, 22.6km from Bekoji and 3km before Serbo, Chilalo, Arsi. **latitude:** 07 deg. 24 min. N. **longitude:** 39 deg. 17 min. E. **elevation:** 2960m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 850mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517291 **donor id:** ILCA 10186. **origin:** Ethiopia. **collected:** December 15, 1983. **collector:** S. Mengistu. **locality:** Wheat farm, near small village, clay, 257.6km from Addis Ababa towards Bale Goba via Asela, 22.6km from Bekoji and 3km before Serbo, Chilalo, Arsi. **latitude:** 07 deg. 22 min. N. **longitude:** 39 deg. 17 min. E. **elevation:** 2880m. **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 700mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517292 **donor id:** ILCA 10189. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517293 **donor id:** ILCA 10204. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Loam, left side near eucalip, Demonstration site, Ministry of Agriculture, 22km before Bale Robe, Dinsho, Mendeyu, 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. Annual. Wild. Seed.
- PI 517294 **donor id:** ILCA 10244. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Clay loam, fenced area on left side of road, 394.9km from Addis Ababa towards Mayalem, 8.1km before Yirga Chefe, Gedio, Sidamo. **latitude:** 07 deg. 16 min. N. **longitude:** 38 deg. 13 min. E. **elevation:** 1960m. **remarks:** Plants herbaceous, 40cm tall. Annual rainfall 1600mm. Soil pH 5.5. Annual. Wild. Seed.

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 **donor id:** ILCA 7678. **origin:** Ethiopia. Annual. Wild. Seed.

PI 517295 to 517329-continued

- PI 517296 donor id: ILCA 7680. origin: Ethiopia. collected: January 18, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay soil, Dejen, Debre Markos, Gojam. latitude: 10 deg. 21 min. N. longitude: 38 deg. 09 min. E. elevation: 2410m. remarks: Plants herbaceous, 35cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517297 donor id: ILCA 7753. origin: Ethiopia. collected: January 24, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Sandy soil, Gonder Zwia, Gonder, Gonder. latitude: 12 deg. 29 min. N. longitude: 37 deg. 24 min. E. elevation: 2000m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517298 donor id: ILCA 7773. origin: Ethiopia. Annual. Wild. Seed.
- PI 517299 donor id: ILCA 7778. origin: Ethiopia. collected: January 26, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Loamy soil, Farta, Debre Tabor, Gonder. latitude: 11 deg. 52 min. N. longitude: 37 deg. 57 min. E. elevation: 2460m. remarks: Plants herbaceous, 40cm tall. Annual rainfall 1500mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517300 donor id: ILCA 7867. origin: Ethiopia. Annual. Wild. Seed.
- PI 517301 donor id: ILCA 7872. origin: Ethiopia. Annual. Wild. Seed.
- PI 517302 donor id: ILCA 7876. origin: Ethiopia. Annual. Wild. Seed.
- PI 517303 donor id: ILCA 8325. origin: Ethiopia. collected: December 01, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay soil, Adis Alem, Menagesha, Shewa. latitude: 09 deg. 00 min. N. longitude: 38 deg. 17 min. E. elevation: 2000m. remarks: Plants herbaceous, 40-45cm tall. Annual rainfall 1500mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517304 donor id: ILCA 8343. origin: Ethiopia. collected: December 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay soil, Ambo Akababi, Jibat & Mecha, Shewa. latitude: 08 deg. 59 min. N. longitude: 37 deg. 48 min. E. elevation: 2000m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1200mm. Soil pH 8.0. Annual. Wild. Seed.

PI 517295 to 517329-continued

- PI 517305 donor id: ILCA 8347. origin: Ethiopia. Annual. Wild. Seed.
- PI 517306 donor id: ILCA 8351. origin: Ethiopia. Annual. Wild. Seed.
- PI 517307 donor id: ILCA 8355. 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 517308 donor id: ILCA 8368. origin: Ethiopia. collected: December 03, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loamy soil, Cheliya, Jibat & Mecha, Shewa. latitude: 09 deg. 00 min. N. longitude: 37 deg. 28 min. E. elevation: 2580m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1300mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517309 donor id: ILCA 8372. origin: Ethiopia. Annual. Wild. Seed.
- PI 517310 donor id: ILCA 8379. origin: Ethiopia. collected: December 03, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loamy soil, Cheliya, Jibat & Mecha, Shewa. latitude: 08 deg. 59 min. N. longitude: 37 deg. 21 min. E. elevation: 1800m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1500mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517311 donor id: ILCA 8381. origin: Ethiopia. collected: December 03, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loamy soil, Cheliya, Jibat & Mecha, Shewa. latitude: 09 deg. 01 min. N. longitude: 37 deg. 17 min. E. elevation: 1820m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1500mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517312 donor id: ILCA 8404. origin: Ethiopia. Annual. Wild. Seed.
- PI 517313 donor id: ILCA 8414. origin: Ethiopia. collected: December 05, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Jima Arjo, Arjo, Welega. latitude: 08 deg. 42 min. N. longitude: 36 deg. 27 min. E. elevation: 2050m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1900mm. Soil pH 4.5. Annual. Wild. Seed.



PI 517295 to 517329-continued

- PI 517314 donor id: ILCA 8419. origin: Ethiopia. Annual. Wild. Seed.
- PI 517315 donor id: ILCA 8455. origin: Ethiopia. collected: December 07, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loamy soil, Sedkoru, Jima, Kefa. latitude: 07 deg. 55 min. N. longitude: 37 deg. 24 min. E. elevation: 1900m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517316 donor id: ILCA 8457. origin: Ethiopia. Annual. Wild. Seed.
- PI 517317 donor id: ILCA 8466. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Goro, Chebo & Mecha, Shewa. latitude: 08 deg. 17 min. N. longitude: 37 deg. 47 min. E. elevation: 1880m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517318 donor id: ILCA 8472. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loamy soil, Gora, Chebo & Gurage, Shewa. latitude: 08 deg. 21 min. N. longitude: 37 deg. 48 min. E. elevation: 1880m. remarks: Plants herbaceous, 35cm tall. Annual rainfall 1100mm. Soil pH 7.5. Annual. Wild. Seed.
- PI 517319 donor id: ILCA 8474. origin: Ethiopia. Annual. Wild. Seed.
- PI 517320 donor id: ILCA 8537. origin: Ethiopia. collector: J. Kahurananga & A. Ahmed. locality: Clay loam, 10m S of road, 30km NW of D. Markos on road to Bahir Dar, Gojam. latitude: 10 deg. 30 min. N. longitude: 37 deg. 33 min. E. elevation: 2350m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1400mm. Soil pH 5.6. Annual. Wild. Seed.
- PI 517321 donor id: ILCA 9985. origin: Ethiopia. collector: S. Mengistu. locality: Loamy soil, 222km from Addis Ababa towards Jimma, 7.7km before Sekoru, Jimma, Kefa. latitude: 07 deg. 56 min. N. longitude: 37 deg. 25 min. E. elevation: 2010m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1350mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517322 donor id: ILCA 10050. origin: Ethiopia. Annual. Wild. Seed.

PI 517295 to 517329-continued

- 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 donor id: ILCA 5788. origin: Ethiopia. Perennial.  
Wild. Seed.
- PI 517331 donor id: ILCA 6284. origin: Ethiopia. collector: J.  
Kahurananga & A. Ahmed. other id: 5785. source: Orig.  
ILCA no. locality: Peaty loam, Bale mountains, 47km W of  
Robe on road from Goba to Shashamane, Woreda area,  
Awraja, Bale. latitude: 07 deg. 05 min. N. longitude:  
39 deg. 40 min. E. elevation: 3500m. remarks: Plants  
creeping, oblongum type. Annual rainfall 1100mm. Soil pH  
5.0. Perennial. Wild. Seed.
- PI 517332 donor id: ILCA 8211. origin: Ethiopia. collected:  
November 16, 1982. collector: L. Akundabweni, S.  
Mengistu. locality: Sandy loam, Dinsho, Mendoyu, Welo.  
latitude: 07 deg. 05 min. N. longitude: 39 deg. 41 min.  
E. elevation: 3250m. remarks: Plants herbaceous, 15cm  
tall, johnstonii type. Annual rainfall 1000mm. Soil pH  
4.5. Perennial. Wild. Seed.
- PI 517333 donor id: ILCA 8598. origin: Ethiopia. collected:  
December 17, 1982. collector: S. Mengistu, Y. Hassen, A.  
Ahmed. locality: Clay loam, Limu & Bilbilo, Chilalo,  
Arsi. latitude: 07 deg. 34 min. N. longitude: 39 deg.  
15 min. E. elevation: 2650m. remarks: Plants  
herbaceous, 10cm tall, johnstonii type. Annual rainfall  
1000mm. Soil pH 5.5. Perennial. Wild. Seed.
- PI 517334 donor id: ILCA 8607. origin: Ethiopia. collected:  
December 18, 1982. collector: A. Ahmed, S. Mengistu, Y.  
Hassen. collector id: SM-4-200-A. locality: Slopy  
roadside, left side, clay loam, 357.9km from Addis Ababa  
towards Bale via Shashemane, Adaba, Genale, Bale.  
latitude: 07 deg. 03 min. N. longitude: 39 deg. 31 min.  
E. elevation: 2640m. remarks: Plants herbaceous, 15cm  
tall, johnstonii type. Annual rainfall 700mm. Soil pH  
5.5. Seed collected from several plants. Perennial.  
Wild. Seed.
- PI 517335 donor id: ILCA 8610. origin: Ethiopia. collected:  
December 19, 1982. collector: S. Mengistu, Y. Hassen, A.  
Ahmed. locality: Peaty loam, Adaba, Genale, Bale.  
latitude: 07 deg. 03 min. N. longitude: 39 deg. 36 min.  
E. elevation: 3540m. remarks: Plants herbaceous, 140cm  
tall, oblongum type. Annual rainfall 950mm. Soil pH 6.0.  
Perennial. Wild. Seed.
- PI 517336 donor id: ILCA 8611. origin: Ethiopia. Perennial.  
Wild. Seed.

PI 517330 to 517355-continued

- PI 517337 **donor id:** ILCA 8624. **origin:** Ethiopia. **collected:** December 19, 1982. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Loamy soil, Dinshu, Goba, Bale. **latitude:** 07 deg. 07 min. N. **longitude:** 39 deg. 42 min. E. **elevation:** 3090m. **remarks:** Plants herbaceous, 10cm tall, johnstonii type. Annual rainfall 950mm. Soil pH 5.0. Perennial. Wild. Seed.
- PI 517338 **donor id:** ILCA 8676. **origin:** Ethiopia. **collected:** December 24, 1982. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Sandy soil, A. Minch, Gamo, Gamo Gofa. **latitude:** 06 deg. 10 min. N. **longitude:** 37 deg. 35 min. E. **elevation:** 1200m. **remarks:** Plants herbaceous, 15-20cm tall, johnstonii type. Annual rainfall 1000mm. Soil pH 5.0. Perennial. Wild. Seed.
- PI 517339 **donor id:** ILCA 8755. **origin:** Ethiopia. Perennial. Wild. Seed.
- PI 517340 **donor id:** ILCA 8760. **origin:** Ethiopia. **collected:** December 29, 1982. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Loamy soil, Timbaro, Kembata, Shewa. **latitude:** 07 deg. 19 min. N. **longitude:** 37 deg. 48 min. E. **elevation:** 2680m. **remarks:** Plants herbaceous, 20cm tall, johnstonii type. Annual rainfall 1000mm. Perennial. Wild. Seed.
- PI 517341 **donor id:** ILCA 9764. **origin:** Ethiopia. Perennial. Wild. Seed.
- PI 517342 **donor id:** ILCA 9769. **origin:** Ethiopia. Perennial. Wild. Seed.
- PI 517343 **donor id:** ILCA 9777. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, 370km from Addis Ababa towards Kibre Mengist, 7.3km from Hagere Selam, Bore, Jemjem, Sidamo. **latitude:** 06 deg. 26 min. N. **longitude:** 38 deg. 34 min. E. **elevation:** 2800m. **remarks:** Plants herbaceous, 10cm tall, johnstonii type. Annual rainfall 1400mm. Soil pH 4.5. Perennial. Wild. Seed.
- PI 517344 **donor id:** ILCA 9780. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy soil, 380km from Addis Ababa towards Kibre Mengist, 9.2km from Hagere Selam, protected site under reforestation, Bore, Jemjem, Sidamo. **latitude:** 06 deg. 24 min. N. **longitude:** 38 deg. 36 min. E. **elevation:** 2800m. **remarks:** Plants herbaceous, 10cm tall, johnstonii type. Annual rainfall 1400mm. Soil pH 5.0. Perennial. Wild. Seed.
- PI 517345 **donor id:** ILCA 10165. **origin:** Ethiopia. Perennial. Wild. Seed.

PI 517330 to 517355-continued

- PI 517346 donor id: ILCA 10174. origin: Ethiopia. collector: S. Mengistu. locality: Roadside, left side, foot of hill, clay soil, 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, johnstonii type. Annual rainfall 1100mm. Perennial. Wild. Seed.
- PI 517347 donor id: ILCA 10179. origin: Ethiopia. Perennial. Wild. Seed.
- PI 517348 donor id: ILCA 10193. origin: Ethiopia. collector: S. Mengistu. locality: Peaty loam, 376.7km from Addis Ababa towards Bale Goba via Shashemane, 33.4km from Adaba, Genale, Bale. latitude: 07 deg. 03 min. N. longitude: 39 deg. 33 min. E. elevation: 3550m. remarks: Plants herbaceous, 90-106cm tall, oblongum type. Annual rainfall 950mm. Soil pH 5.5. Perennial. Wild. Seed.
- PI 517349 donor id: ILCA 10195. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, 40.5km from Adaba on depression on right side of road, Dinsho, Mendeyu, Bale. latitude: 07 deg. 04 min. N. longitude: 39 deg. 41 min. E. elevation: 2320m. remarks: Plants herbaceous, 15cm tall, johnstonii type. Annual rainfall 950mm. Soil pH 4.5. Perennial. Wild. Seed.
- PI 517350 donor id: ILCA 10200. origin: Ethiopia. Perennial. Wild. Seed.
- PI 517351 donor id: ILCA 10203. origin: Ethiopia. Perennial. Wild. Seed.
- PI 517352 donor id: ILCA 10207. origin: Ethiopia. collector: S. Mengistu. locality: Loamy soil, Demonstration site, Ministry of Agriculture, 22km before Bale Robe, Dinsho, Mendeyu, Bale. latitude: 07 deg. 06 min. N. longitude: 39 deg. 47 min. E. elevation: 950m. remarks: Plants herbaceous, 20cm tall, johnstonii type. Annual rainfall 950mm. Soil pH 4.5. Perennial. Wild. Seed.
- PI 517353 donor id: ILCA 10222. origin: Ethiopia. Perennial. Wild. Seed.
- PI 517354 donor id: ILCA 10247. origin: Ethiopia. collector: S. Mengistu. locality: "Wete" farmers association, waterlogged area right side of road, silty loam, 7.2km from Yirga Chefe, Gedio, Sidamo. latitude: 06 deg. 09 min. N. longitude: 38 deg. 12 min. E. elevation: 2150m. remarks: Plants herbaceous, 15cm tall, johnstonii type. Annual rainfall 1700mm. Soil pH 5.5. Perennial. Wild. Seed.

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, Fische 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 517356 to 517385-continued

- 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 517378 **donor id:** ILCA 9713. **origin:** Ethiopia. **collected:** November 04, 1983. **collector:** S. Mengistu. **other id:** SM-6-11-B. **locality:** Clay, bottomland, right side of road, 167.3km from Addis Ababa towards Debre Markos, 17.5km before Goha Tsion, 1 km before Tulu. **latitude:** 09 deg. 37 min. N. **longitude:** 38 deg. 22 min. E. **elevation:** 2560m. **remarks:** Plants herbaceous, 10cm tall. Annual rainfall 1000mm. Soil pH 5.5. Perennial. Wild. Seed.
- PI 517379 **donor id:** ILCA 9726. **origin:** Ethiopia. Perennial. Wild. Seed.
- PI 517380 **donor id:** ILCA 10143. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Clay, bottomland near small bridge, 52.2km from Addis Ababa towards Ambo, 2.2km next to Holeta and 5km before Addis Alem. **latitude:** 09 deg. 14 min. N. **longitude:** 38 deg. 24 min. E. **elevation:** 2450m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1500mm. Soil pH 5.0. Perennial. Wild. Seed.
- PI 517381 **donor id:** ILCA 10154. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, along small stream, 90km from Addis Ababa towards Muger, 49km next to Holeta, 1 km before Enchine town, Addis Alem, Menagesha, Shewa. **latitude:** 09 deg. 18 min. N. **longitude:** 38 deg. 22 min. E. **elevation:** 2640m. **remarks:** Plants herbaceous, 10cm tall. Annual rainfall 1500mm. Perennial. Wild. Seed.
- PI 517382 **donor id:** ILCA 10194. **origin:** Ethiopia. Perennial. Wild. Seed.
- PI 517383 **donor id:** ILCA 10196. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sand, near pond, 8.8km before Dinsho, Bale National Park, Dinsho, Mendeyu, Bale. **latitude:** 07 deg. 07 min. N. **longitude:** 39 deg. 43 min. E. **elevation:** 3080m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 950mm. Perennial. Wild. Seed.
- PI 517384 **donor id:** ILCA 10198. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Loam, roadway, right side, 402.7km from Addis Ababa towards Bale Goba via Shashemene, 1 km next to Kinsho, National Park, Dinsho, Mendeyu, Bale. **latitude:** 07 deg. 07 min. N. **longitude:** 39 deg. 47 min. E. **elevation:** 3110m. **remarks:** Plants herbaceous, 12cm tall. Annual rainfall 950mm. Soil pH 5.0. Perennial. Wild. Seed.

PI 517356 to 517385-continued

PI 517385 donor id: ILCA 10209. origin: Ethiopia. collector: S. Mengistu. locality: Loam, Demonstration site, Ministry of Agriculture, 22km before Bale Robe, Dinsho, Mendeyu, Bale. latitude: 07 deg. 06 min. N. longitude: 39 deg. 47 min. E. elevation: 2720m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 950mm. Perennial. Wild. Seed.

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 donor id: ILCA 5816. origin: Ethiopia. remarks: Obtained from the IAR, Holetta collection. Annual. Wild. Seed.

PI 517387 donor id: ILCA 6256. origin: Ethiopia. Annual. Wild. Seed.

PI 517388 donor id: ILCA 6264. origin: Ethiopia. Annual. Wild. Seed.

PI 517389 donor id: ILCA 6265. origin: Ethiopia. Annual. Wild. Seed.

PI 517390 donor id: ILCA 6267. origin: Ethiopia. collector: A. Ahmed, A. Sitota. locality: Clay loam, Gudalma, 29km W of Dejen Gojjam, Gojam. latitude: 10 deg. 13 min. N. longitude: 37 deg. 52 min. E. elevation: 2450m. remarks: Plants herbaceous. Annual rainfall 1300mm. Soil pH 5.0. Annual. Wild. Seed.

PI 517391 donor id: ILCA 6268. origin: Ethiopia. Annual. Wild. Seed.

PI 517392 donor id: ILCA 6269. origin: Ethiopia. collector: A. Ahmed. other id: ILCA 5761. source: Orig. ILCA no. locality: Clay soil. latitude: 10 deg. 13 min. N. longitude: 37 deg. 52 min. E. elevation: 2450m. remarks: Plants 20cm tall. Annual rainfall 1300mm. Soil pH 5.8. Annual. Wild. Seed.

PI 517393 donor id: ILCA 6270. origin: Ethiopia. collector: A. Ahmed, A. Sitota. other id: ILCA 5735. source: Orig. ILCA no. locality: Clay, 35km S of Dangla towards Debre Markos Gojjam, Gojam. latitude: 10 deg. 50 min. N. longitude: 36 deg. 58 min. E. elevation: 2500m. remarks: Plants 30cm tall. Annual rainfall 1800mm. Soil pH 5.8. Annual. Wild. Seed.

PI 517386 to 517420-continued

- PI 517394 donor id: ILCA 6271. origin: Ethiopia. Annual. Wild. Seed.
- PI 517395 donor id: ILCA 6272. origin: Ethiopia. collector: A. Ahmed, A. Sitota. locality: Clay loam, Abou Farmers Association, 10km S of Dangla, Gojjam, Gojam. latitude: 11 deg. 12 min. N. longitude: 36 deg. 05 min. E. elevation: 2400m. remarks: Plants 30cm tall. Annual rainfall 1500mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517396 donor id: ILCA 6274. origin: Ethiopia. collector: A. Ahmed, A. Sitota. locality: Clay loam, Busen Bale Egzabier, between Dangla and Injibara, Gojam. latitude: 11 deg. 12 min. N. longitude: 36 deg. 50 min. E. elevation: 2400m. remarks: Plants 25cm tall. Annual rainfall 1700mm. Soil pH 5.6. Annual. Wild. Seed.
- PI 517397 donor id: ILCA 6275. origin: Ethiopia. Annual. Wild. Seed.
- PI 517398 donor id: ILCA 6276. origin: Ethiopia. collector: A. Ahmed. other id: ILCA 5737. source: Orig. ILCA no. locality: Clay loam, Shewas Michael about 12km S of Dangla, Gojjam, Gojam. latitude: 11 deg. 14 min. N. longitude: 36 deg. 51 min. E. elevation: 2350m. remarks: Plants 25cm tall. Annual rainfall 1500mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517399 donor id: ILCA 6303. origin: Ethiopia. Annual. Wild. Seed.
- PI 517400 donor id: ILCA 7715. origin: Ethiopia. collected: January 20, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay loam, Shikudad, Dega-kola Damot, Gojam. latitude: 10 deg. 43 min. N. longitude: 37 deg. 04 min. E. elevation: 2480m. remarks: Plants herbaceous, small, 10cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517401 donor id: ILCA 7776. origin: Ethiopia. collected: January 26, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Loam, Farta, Debre Tabor, Gonder. latitude: 11 deg. 52 min. N. longitude: 37 deg. 58 min. E. elevation: 2460m. remarks: Plants 20cm tall. Annual rainfall 1500mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517386 to 517420-continued

- PI 517402 **donor id:** ILCA 8522. **origin:** Ethiopia. **collector:** J. Kahurananga, A. Ahmed. **locality:** Clay, Farasaga Giorgis, 92km NW of Mota on road to Bahar Dar, 10m E of road, Gojam. **latitude:** 11 deg. 26 min. N. **longitude:** 37 deg. 36 min. E. **elevation:** 2200m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 4.9. Annual. Wild. Seed.
- PI 517403 **donor id:** ILCA 8524. **origin:** Ethiopia. **collector:** J. Kahurananga. **locality:** Clay, Tehtada Mariam, 22km S of Gonder on road to Bahar Dar, 15m W of road, Gonder. **latitude:** 12 deg. 29 min. N. **longitude:** 37 deg. 27 min. E. **elevation:** 1950m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Annual. Wild. Seed.
- PI 517404 **donor id:** ILCA 8525. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517405 **donor id:** ILCA 8542. **origin:** Ethiopia. **collector:** A. Ahmed. **locality:** Clay loam, Bedi, 12km N of junction, 32km W of Addis on Wolleg road, Shewa. **latitude:** 09 deg. 13 min. N. **longitude:** 38 deg. 38 min. E. **elevation:** 2650m. **remarks:** Plants 15cm tall. Annual rainfall 1200mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517406 **donor id:** ILCA 8546. **origin:** Ethiopia. **collector:** A. Ahmed. **locality:** Clay loam, Bedi, 12km N of junction, 32km W of Addis on Wollega road, Shewa. **latitude:** 09 deg. 13 min. N. **longitude:** 38 deg. 38 min. E. **elevation:** 2650m. **remarks:** Plants 20cm tall. Annual rainfall 1200mm. Soil pH 5.2. Annual. Wild. Seed.
- PI 517407 **donor id:** ILCA 8547. **origin:** Ethiopia. **collector:** J. Kahurananga. **locality:** Clay loam, Bedi, 12km N of junction, 32km W of Addis on Wellega road, Shewa. **latitude:** 09 deg. 13 min. N. **longitude:** 38 deg. 38 min. E. **elevation:** 2650m. **remarks:** Plants 20cm tall. Annual rainfall 1200mm. Soil pH 5.1. Annual. Wild. Seed.
- PI 517408 **donor id:** ILCA 9056. **origin:** Ethiopia. **collector:** J. Kahurananga & A. Ahmed. **locality:** Clay, Sure, near bridge on main road from town 1 km away, 150km NW of D. Markos, Gojam. **latitude:** 10 deg. 42 min. N. **longitude:** 37 deg. 04 min. E. **elevation:** 2100m. **remarks:** Plants 35cm tall. Annual rainfall 1200mm. Soil pH 5.9. Annual. Wild. Seed.

PI 517386 to 517420-continued

- PI 517409 **donor id:** ILCA 9437. **origin:** Ethiopia. **collector:** J. Kahurananga & A. Ahmed. **locality:** Clay loam, 32km S of Dangla forest Reserve just off road on the right side towards Iryibara, Shewa. **latitude:** 10 deg. 56 min. N. **longitude:** 36 deg. 58 min. E. **elevation:** 2600m. **remarks:** Plants 115cm tall. Annual rainfall 1700mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517410 **donor id:** ILCA 9447. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517411 **donor id:** ILCA 9458. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517412 **donor id:** ILCA 9682. **origin:** Ethiopia. **collected:** November 02, 1983. **collector:** S. Mengistu. **collector id:** SM-6-01-B. **locality:** Clay, Sentera plain field, middle of field where stream crosses, 315km from Addis Ababa towards Bahar Dar, 15km to Debre Markos, Gozamin, Debre Markos, Gojam. **latitude:** 10 deg. 22 min. N. **longitude:** 37 deg. 36 min. E. **elevation:** 2300m. **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 1300mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517413 **donor id:** ILCA 9689. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517414 **donor id:** ILCA 9691. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517415 **donor id:** ILCA 9698. **origin:** Ethiopia. **collected:** November 03, 1983. **collector:** S. Mengistu. **collector id:** SM-6-07-B. **locality:** Clay, plain bottom land on edge of road, 248.7km from Addis Ababa, towards Debre Markos, 10.3km before Lumane, 1 km before Wejel village, Awabel, Debre Markos, Gojam. **latitude:** 10 deg. 14 min. N. **longitude:** 37 deg. 03 min. E. **elevation:** 2410m. **remarks:** Plants herbaceous, 35cm tall. Annual rainfall 1200mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517416 **donor id:** ILCA 9702. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517417 **donor id:** ILCA 10118. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Clay loam, 225.8km from Addis Ababa towards Fincha dam, 12.8km before Wayu, Guso farmer Kebele, Abay Chomen, Horo Gudru, Welega. **latitude:** 09 deg. 12 min. N. **longitude:** 37 deg. 19 min. E. **elevation:** 2840m. **remarks:** Plants herbaceous, 48cm tall. Annual rainfall 1500mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517386 to 517420-continued

PI 517418 donor id: ILCA 10148. origin: Ethiopia. collector: S. Mengistu. locality: Clay soil. latitude: 09 deg. 12 min. N. longitude: 38 deg. 27 min. E. elevation: 2650m. remarks: Annual rainfall 1500mm. Soil pH 5.0. Annual. Wild. Seed.

PI 517419 donor id: ILCA 10885. origin: Ethiopia. Annual. Wild. Seed.

PI 517420 donor id: ILCA 10888. origin: Ethiopia. Annual. Wild. Seed.

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 517421 donor id: ILCA 5653. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFTR 619. other id: ILCA 5651, ILCA 5659. source: Orig. ILCA nos. Perennial. Wild. Seed.

PI 517422 donor id: ILCA 5654. origin: Syria. origin institute: ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFTR 620. other id: ILCA 5654. source: Orig. ILCA no. Perennial. Wild. Seed.

PI 517423 donor id: ILCA 6743. origin: UNKNOWN. remarks: Obtained from FAO. Perennial. Wild. Seed.

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 517424 donor id: ILCA 5657. origin: UNKNOWN. remarks: Obtained from ICARDA. Perennial. Wild. Seed.

PI 517425 donor id: ILCA 6741. origin: Canada. cultivar: CANADIAN. remarks: Obtained from the Townsend Company, UK. Perennial. Cultivar. Seed.

PI 517426 to 517447. *Trifolium mattirolianum* Chiov. FABACEAE

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

PI 517426 to 517447-continued

- PI 517426 **donor id:** ILCA 8400. **origin:** Ethiopia. **collected:** December 05, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Loam, Guto Gida, Nekemte, Welega. **latitude:** 9 deg. 04 min. N. **longitude:** 36 deg. 31 min. E. **elevation:** 2100m. **remarks:** Plants herbaceous, 15-20cm tall. Annual rainfall 2000mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517427 **donor id:** ILCA 9986. **origin:** Ethiopia. **collected:** November 16, 1983. **collector:** S. Mengistu. **collector id:** SM-7-13-B. **locality:** Loam, ETCA gravel grinding site, on rolling slope near farmers village, 222km from Addis Ababa towards Jimma, 7.7km before Sokoru, Kecha locality, Sekoru, Jimma, Kefa. **latitude:** 07 deg. 56 min. N. **longitude:** 37 deg. 25 min. E. **elevation:** 2010m. **remarks:** Plants herbaceous, 25cm tall. Annual rainfall 1350mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517428 **donor id:** ILCA 9987. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517429 **donor id:** ILCA 9997. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, near Minco farmers Association adult literacy school, 22.6km next to Jimma, Chekorsa, Jima, Kefa. **latitude:** 07 deg. 35 min. N. **longitude:** 36 deg. 40 min. E. **elevation:** 1950m. **remarks:** Plants herbaceous, 60cm tall. Annual rainfall 1500mm. Soil 4.5km. Annual. Wild. Seed.
- PI 517430 **donor id:** ILCA 10002. **origin:** Ethiopia. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1800mm. Annual. Wild. Seed.
- PI 517431 **donor id:** ILCA 10010. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, hillside on right side of road, 13km before Bonga, 427km from Addis Ababa, Kefa, Kefa. **latitude:** 07 deg. 21 min. N. **longitude:** 36 deg. 16 min. E. **elevation:** 1850m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1800mm. Soil pH 5.4. Annual. Wild. Seed.
- PI 517432 **donor id:** ILCA 10011. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, 401.5km from Addis Ababa towards Bedele via Jimma, 7.5km next to Agaro, Dike segenete ville, Goma, Limu, Kefa. **latitude:** 07 deg. 54 min. N. **longitude:** 36 deg. 33 min. E. **elevation:** 1790m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1800mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517433 **donor id:** ILCA 10019. **origin:** Ethiopia. Annual. Wild. Seed.

PI 517426 to 517447-continued

- PI 517434 **donor id:** ILCA 10024. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Loam, hilly area on left side of road, 443.8km from Addis Ababa towards Bedele via Jimma, 12.8km before Gecha, Gechi, Buno Bedele, Kefa. **latitude:** 08 deg. 17 min. N. **longitude:** 36 deg. 26 min. E. **elevation:** 2250m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1800mm. Soil pH 5.1. Annual. Wild. Seed.
- PI 517435 **donor id:** ILCA 10029. **origin:** Ethiopia. **collected:** November 19, 1983. **collector:** S. Mengistu. **collector id:** SM-7-29-B. **locality:** Sand, rolling slope on right side of road, 466.3km from Addis Ababa towards Bedele via Jimma, 13.7km before Bedele, 5.6km next to Gecha Dengwaj, Gechi, Buno Bedele, Kefa. **latitude:** 08 deg. 23 min. N. **longitude:** 36 deg. 23 min. E. **elevation:** 2050m. **remarks:** Plants herbaceous, 60cm tall. Annual rainfall 2000mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517436 **donor id:** ILCA 10033. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Loam, 10km from Bedele towards Metu, Bedele, Buno Bedele, Kefa. **latitude:** 08 deg. 24 min. N. **longitude:** 36 deg. 18 min. E. **elevation:** 1870m. **remarks:** Plants herbaceous, 35cm tall. Annual rainfall 2000mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517437 **donor id:** ILCA 10037. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517438 **donor id:** ILCA 10040. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, cattle breeding area, 27km next to Bedele Kumbabe, Chera, Buno Bedele, Ilubabor. **latitude:** 08 deg. 21 min. N. **longitude:** 36 deg. 07 min. E. **elevation:** 1940m. **remarks:** Plants herbaceous, 35cm tall. Annual rainfall 1800mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517439 **donor id:** ILCA 10051. **origin:** Ethiopia. **collected:** November 21, 1983. **collector:** S. Mengistu. **collector id:** SM-7-36-A. **locality:** Loam, near depression on right side of road, 491km from Addis Ababa towards Bedele via Nekemte, 10.9km before Bedele, Buno Bedele, Ilubabor. **latitude:** 08 deg. 32 min. N. **longitude:** 36 deg. 22 min. E. **elevation:** 1920m. **remarks:** Plants herbaceous, 25cm tall. Annual rainfall 2000mm. Soil pH 4.5. Annual. Wild. Seed.



PI 517426 to 517447-continued

- PI 517440 **donor id:** ILCA 10055. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sand, 17.9km before Bedele, 498km from Addis Ababa towards Bedele via Nekemete, Jimma Arjo, Arjo, Ilubabor. **latitude:** 08 deg. 37 min. N. **longitude:** 36 deg. 21 min. E. **elevation:** 1960m. **remarks:** Plants herbaceous, 35.45cm tall. Annual rainfall 1900mm Soil pH 7.0. Annual. Wild. Seed.
- PI 517441 **donor id:** ILCA 10069. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517442 **donor id:** ILCA 10074. **origin:** Ethiopia. **collected:** November 22, 1983. **collector:** S. Mengistu. **collector id:** SM-7-43-A. **locality:** Sand, 482km from Addis Ababa towards Dembidolo via Gimbi, Dongoro Adventist Academy, 12.2km N of road to Nejo, Gimbi, Gimbi, Welega. **latitude:** 09 deg. 21 min. N. **longitude:** 35 deg. 33 min. E. **elevation:** 1920m. **remarks:** Plants herbaceous, 15-20cm tall. Annual rainfall 2000mm. Annual. Wild. Seed.
- PI 517443 **donor id:** ILCA 10076. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy hillside, 425km from Addis Ababa towards Gimbi, 33.4km before Gimbi, Gimbi, Welega. **latitude:** 09 deg. 02 min. N. **longitude:** 36 deg. 03 min. E. **elevation:** 1900m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1900mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517444 **donor id:** ILCA 10077. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517445 **donor id:** ILCA 10085. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, 310.7km from Addis Ababa towards Nekemte, 19.3km before Nekemte, Wayu Tuka, Nekemte, Welega. **latitude:** 09 deg. 02 min. N. **longitude:** 36 deg. 40 min. E. **elevation:** 1910m. **remarks:** Plants herbaceous, 40cm tall. Annual rainfall 1800mm. Annual. Wild. Seed.
- PI 517446 **donor id:** ILCA 10088. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, 299.5km from Addis Ababa towards Nekemete, 22km before Nekemete, Wayu Tuka, Nekemte, Welega. **latitude:** 09 deg. 03 min. N. **longitude:** 36 deg. 45 min. E. **elevation:** 1920m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1800mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517447 **donor id:** ILCA 10092. **origin:** Ethiopia. Annual. Wild. Seed.

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. N. longitude: 39 deg. 18 min. E. 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. Annual. Wild. Seed.
- PI 517450 donor id: ILCA 9717. origin: Ethiopia. Annual. Wild. Seed.
- PI 517451 donor id: ILCA 9724. origin: Ethiopia. collector: S. Mengistu. locality: Sandy loam, 91.4km from Addis Ababa towards Debre Markos, 2km next to Debre Tsige, Debre Libanos, Debre Markos, Gojam. latitude: 09 deg. 39 min. N. longitude: 38 deg. 49 min. E. elevation: 2670m. remarks: Plants herbaceous, 7cm tall. Annual rainfall 1200mm. 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. Annual. Wild. Seed.
- PI 517453 donor id: ILCA 8151. origin: Ethiopia. collected: November 14, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Gedeb, Chilalo, Arsi. latitude: 07 deg. 18 min. N. longitude: 39 deg. 13 min. E. elevation: 2760m. 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, Moret & Jiru, Tegulet & Bulga, Shewa. latitude: 09 deg. 45 min. N. longitude: 39 deg. 11 min. E. elevation: 2620m. remarks: Plants herbaceous, 35cm tall. Annual rainfall 950mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517452 to 517455-continued

PI 517455 **donor id:** ILCA 10167. **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. 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 **donor id:** ILCA 6299. **origin:** Ethiopia. Perennial. Wild. Seed.

PI 517457 **donor id:** ILCA 7657. **origin:** Ethiopia. **collected:** January 16, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay loam, Hulet Insas, Mota, Gojam. **latitude:** 11 deg. 05 min. N. **longitude:** 37 deg. 57 min. E. **elevation:** 2450m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1500mm. Soil pH 6.0. Perennial. Wild. Seed.

PI 517458 **donor id:** ILCA 8369. **origin:** Ethiopia. Perennial. Wild. Seed.

PI 517459 **donor id:** ILCA 8409. **origin:** Ethiopia. **collected:** December 05, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Jima Arjo, Arjo, Welega. **latitude:** 08 deg. 46 min. N. **longitude:** 36 deg. 30 min. E. **elevation:** 2500m. **remarks:** Plants herbaceous, 40cm tall. Annual rainfall 2000mm. Soil pH 4.5. Perennial. Wild. Seed.

PI 517460 **donor id:** ILCA 8423. **origin:** Ethiopia. Perennial. Wild. Seed.

PI 517461 **donor id:** ILCA 8518. **origin:** Ethiopia. **collector:** J. Kahurananga & A. Ahmed. **locality:** Clay, Gundawany Mariam, 106km N of Dejen on road to Mota, 30m E of road, Gojam. **latitude:** 11 deg. 01 min. N. **longitude:** 38 deg. 06 min. E. **elevation:** 2660m. **remarks:** Plants herbaceous, 80cm tall. Annual rainfall 1200mm. Soil pH 6.2. Perennial. Wild. Seed.

PI 517456 to 517465-continued

- PI 517462 donor id: ILCA 8526. origin: Ethiopia. collector: J. Kahurananga, A. Ahmed. locality: Clay. latitude: 12 deg. 28 min. N. longitude: 37 deg. 28 min. E. elevation: 1980m. remarks: Plants herbaceous, 40cm tall. Annual rainfall 1100mm. Soil pH 5.9. Perennial. Wild. Seed.
- PI 517463 donor id: ILCA 9998. origin: Ethiopia. collector: S. Mengistu. locality: Clay, marshy area on left side of road, 33km next to Jimma, Sombo village, Chekorsa, Jima, Kefa. latitude: 07 deg. 33 min. N. longitude: 36 deg. 37 min. E. elevation: 1980m. remarks: Plants herbaceous, 55cm tall. Annual rainfall 1500mm. Perennial. Wild. Seed.
- PI 517464 donor id: ILCA 10220. origin: Ethiopia. collector: S. Mengistu. locality: Clay, just below cemented water reservoir built for watering cattle, 6.1km before Bale Robe, Goba, Mendoyu, Bale. latitude: 07 deg. 10 min. N. longitude: 39 deg. 58 min. E. elevation: 2430m. remarks: Plants herbaceous, 45cm tall. Annual rainfall 950mm. Soil pH 8.0. Perennial. Wild. Seed.
- PI 517465 donor id: ILCA 10246. origin: Ethiopia. Perennial. Wild. Seed.

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 donor id: ILCA 6736. origin: UNKNOWN. cultivar: SABTORON. remarks: Obtained from the Townsend Company, UK. Perennial. Cultivar. Seed.
- PI 517467 donor id: ILCA 6738. origin: UNKNOWN. cultivar: HAMUA BROAD. remarks: Obtained from Portugal. Perennial. Cultivar. Seed.
- PI 517468 donor id: ILCA 6740. origin: UNKNOWN. cultivar: BARFOLIA. other id: V 367. remarks: Obtained from Zwaan Company, The Netherlands. Perennial. Cultivar. Seed.
- PI 517469 donor id: ILCA 7040. origin: UNKNOWN. cultivar: RED WEST. remarks: Obtained from CSIRO, Div. of Plant Industry, Canberra, ACT 2601, Australia. Perennial. Cultivar. Seed.

PI 517466 to 517478-continued

- PI 517470 **donor id:** ILCA 7042. **origin:** UNKNOWN. **local name:** Low grass. **remarks:** Obtained from CSIRO, Div. of Plant Industry, Canberra, Act 2601, Australia. Perennial. Cultivated. Seed.
- PI 517471 **donor id:** ILCA 7043. **origin:** UNKNOWN. **cultivar:** GRASSLANDS HAMUA. **remarks:** Obtained from CSIRO, Australia. Perennial. Cultivar. Seed.
- PI 517472 **donor id:** ILCA 7045. **origin:** UNKNOWN. **cultivar:** COTSWOLD BROAD RED. **remarks:** Obtained from the Townsend Company, UK. Perennial. Cultivar. Seed.
- PI 517473 **donor id:** ILCA 7052. **origin:** UNKNOWN. **other id:** Wild S. 184. **remarks:** Obtained from the Townsend Company, UK. Perennial. Wild. Seed.
- PI 517474 **donor id:** ILCA 7059. **origin:** UNKNOWN. **cultivar:** DREWITTS. **remarks:** Obtained from UK. Perennial. Cultivar. Seed.
- PI 517475 **donor id:** ILCA 7062. **origin:** UNKNOWN. **cultivar:** TUROA. **remarks:** Obtained from Townsend Company, UK. Perennial. Cultivar. Seed.
- PI 517476 **donor id:** ILCA 7080. **origin:** UNKNOWN. **cultivar:** PAWERA. **remarks:** Tetraploid. Obtained from Townsend Company, UK. Perennial. Cultivar. Seed.
- PI 517477 **donor id:** ILCA 9136. **origin:** UNKNOWN. **cultivar:** TOMA. **remarks:** Donated by the Danish Plant Breeding Institute. Perennial. Cultivar. Seed.
- PI 517478 **donor id:** ILCA 10894. **origin:** UNKNOWN. **remarks:** Obtained from UK. Perennial. Wild. Seed.

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 517479 **donor id:** ILCA 6277. **origin:** Ethiopia. **collector:** A. Ahmed, A. Sitota. **locality:** Clay, Gombot Michael, 20km N of Bahir Dar towards Gondar, Gojam. **latitude:** 11 deg. 40 min. N. **longitude:** 37 deg. 28 min. E. **elevation:** 1900m. **remarks:** Plants 10cm tall. Annual rainfall 1300mm. Soil pH 6.0. Annual. Wild. Seed.

PI 517479 to 517501-continued

- PI 517480 donor id: ILCA 6300. origin: Ethiopia. collector: J. Kahurananga, A. Ahmed. locality: Clay loam, 29km W of Dejen towards Debre Markos, Gojjam region, Gojam. latitude: 10 deg. 13 min. N. longitude: 37 deg. 51 min. E. elevation: 2450m. remarks: Plants herbaceous, 12cm tall. Annual rainfall 1300mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517481 donor id: ILCA 7675. origin: Ethiopia. collected: January 18, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay, Dejen, Debre Markos, Gojam. latitude: 10 deg. 14 min. N. longitude: 38 deg. 06 min. E. elevation: 2400m. remarks: Plants herbaceous, 25cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517482 donor id: ILCA 7693. origin: Ethiopia. Annual. Wild. Seed.
- PI 517483 donor id: ILCA 7695. origin: Ethiopia. collected: January 18, 1983. collector: A. Ahmed, Y. Hassen, S. Mengistu. locality: Clay, Awabel, Debre Markos, Gojam. latitude: 10 deg. 16 min. N. longitude: 37 deg. 49 min. E. elevation: 2350m. remarks: Plants herbaceous, 50cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517484 donor id: ILCA 7746. origin: Ethiopia. collected: January 23, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay loam, Fogera, Tabor, Gonder. latitude: 11 deg. 53 min. N. longitude: 37 deg. 41 min. E. elevation: 1860m. remarks: Plants herbaceous, 50cm tall. Annual rainfall 1300mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517485 donor id: ILCA 7759. origin: Ethiopia. Annual. Wild. Seed.
- PI 517486 donor id: ILCA 7768. origin: Ethiopia. collected: January 25, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay, Gonder Zwia, Gonder, Gonder. latitude: 12 deg. 27 min. N. longitude: 37 deg. 31 min. E. elevation: 1940m. remarks: Plants herbaceous, 25cm tall. Annual rainfall 1100mm. Soil pH 8.0. Annual. Wild. Seed.

PI 517479 to 517501-continued

- PI 517487 donor id: ILCA 7771. origin: Ethiopia. collected: January 25, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay, Kemkem Karod, Libo, Gojam. latitude: 12 deg. 03 min. N. longitude: 37 deg. 44 min. E. elevation: 1840m. remarks: Plants herbaceous, 45cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517488 donor id: ILCA 8452. origin: Ethiopia. Annual. Wild. Seed.
- PI 517489 donor id: ILCA 8464. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Goro, Chebo & Gurage, Shewa. latitude: 08 deg. 17 min. N. longitude: 37 deg. 47 min. E. elevation: 1880m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517490 donor id: ILCA 8521. origin: Ethiopia. collector: J. Kahurananga, A. Ahmed. locality: Clay, Farasoga Girogis, 92km NW of Mota on new road to Bahar Dar, 10m E of road, Gojam. latitude: 11 deg. 26 min. N. longitude: 37 deg. 36 min. E. elevation: 2200m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 4.9. Annual. Wild. Seed.
- PI 517491 donor id: ILCA 8535. origin: Ethiopia. Annual. Wild. Seed.
- PI 517492 donor id: ILCA 8540. origin: Ethiopia. collector: J. Kahurananga, A. Ahmed. locality: Clay, Gudalma, 34km SE of D. Markos on road to Addis Ababa, just off road on left side, Gojam. latitude: 10 deg. 13 min. N. longitude: 37 deg. 52 min. E. elevation: 2450m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 5.8. Annual. Wild. Seed.
- PI 517493 donor id: ILCA 9378. origin: Ethiopia. Annual. Wild. Seed.
- PI 517494 donor id: ILCA 9379. origin: Ethiopia. collected: November 15, 1983. collector: J. Kahurananga, A. Ahmed. locality: Clay, 19km W of Dejen on road to Debre Markos, 4m to right of road, Gojam. latitude: 10 deg. 13 min. N. longitude: 38 deg. 02 min. E. elevation: 2450m. remarks: Plants herbaceous, 50cm tall. Annual rainfall 1200mm. Soil pH 5.6. Annual. Wild. Seed.

PI 517479 to 517501-continued

- PI 517495 donor id: ILCA 9428. origin: Ethiopia. collector: J. Kahurananga, A. Ahmed. locality: Clay, 276km NW of Addis Ababa towards Debre Markos, just off road on right side, Shewa. latitude: 10 deg. 08 min. N. longitude: 37 deg. 58 min. E. elevation: 2430m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 5.6. Annual. Wild. Seed.
- PI 517496 donor id: ILCA 9429. origin: Ethiopia. collector: J. Kahurananga, A. Ahmed. locality: Clay, small drainage between teff fields, Santara, 20km NW of Debre Markos, 20m N of road, Gozamin, Debre Markos, Gojam. latitude: 10 deg. 22 min. N. longitude: 37 deg. 43 min. E. elevation: 2270m. remarks: Plants 10cm tall. Annual rainfall 1400mm. Soil pH 6.1. Annual. Wild. Seed.
- PI 517497 donor id: ILCA 9968. origin: Ethiopia. Annual. Wild. Seed.
- PI 517498 donor id: ILCA 9975. origin: Ethiopia. collected: November 16, 1983. collector: S. Mengistu. collector id: SM-7-08-C. locality: Clay loam, rolling upland on left side of road, 161.5km from Addis Ababa towards Jimma, 9.5km next to town of Wolkite, Goro, Chebo & Gurage, Shewa. latitude: 08 deg. 15 min. N. longitude: 37 deg. 40 min. E. elevation: 1840m. remarks: Plants herbaceous, 35cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517499 donor id: ILCA 9990. origin: Ethiopia. collected: November 17, 1983. collector: S. Mengistu. collector id: SM-7-16-A. locality: Clay, lowland site, 268.4km from Addis Ababa towards Jima, 8km next to Deneba, Belyo area, Tiro Afita, Jima, Kefa. latitude: 07 deg. 47 min. N. longitude: 37 deg. 19 min. E. elevation: 1750m. remarks: Plants herbaceous, 130cm tall. Annual rainfall 1500mm. Soil pH 7.5. Plants in sorghum farm, very dense, vigorous and tall. Bulk sample from the population. Annual. Wild. Seed.
- PI 517500 donor id: ILCA 10007. origin: Ethiopia. collected: November 18, 1983. collector: S. Mengistu. locality: Sand, 397.5km from Addis Ababa towards Bonga, near Tishe river valley, Chekorso, Jimma, Kefa. latitude: 07 deg. 28 min. N. longitude: 36 deg. 26 min. E. elevation: 1460m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1500mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517501 donor id: ILCA 10059. origin: Ethiopia. Annual. Wild. Seed.



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 donor id: ILCA 5655. origin: Syria. origin institute:  
ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFTR  
716. Perennial. Wild. Seed.

PI 517503 donor id: ILCA 5656. origin: Syria. origin institute:  
ICARDA, P.O. Box 5466, Aleppo. origin institute id: IFTR  
800. other id: EMP 9238. Perennial. Wild. Seed.

PI 517504 donor id: ILCA 6732. origin: Ethiopia. Perennial.  
Wild. Seed.

PI 517505 donor id: ILCA 6733. origin: Ethiopia. origin  
institute: Zwaan Company. cultivar: BARBIAN. Perennial.  
Cultivar. Seed.

PI 517506 donor id: ILCA 6734. origin: Ethiopia. origin  
institute: Townsend Company. cultivar: RECTOR.  
Perennial. Cultivar. Seed.

PI 517507 donor id: ILCA 6896. origin: Ethiopia. Perennial.  
Wild. Seed.

PI 517508 donor id: ILCA 6983. origin: Australia. origin  
institute: Kimberley Seeds Ltd., 51-King Edward Road,  
Osborne Park, 6017, West Australia. cultivar: NEW  
ZEALAND. Perennial. Cultivar. Seed.

PI 517509 donor id: ILCA 7046. origin: Portugal. origin  
institute: PIS. cultivar: CASAS VELHAS. other id: ILCA  
77018. source: Orig. ILCA no. other id: EMP 2047.  
other id: N 770. Perennial. Cultivar. Seed.

PI 517510 donor id: ILCA 7047. origin: Ethiopia. Perennial.  
Wild. Seed.

PI 517511 donor id: ILCA 7048. origin: Ethiopia. origin  
institute: Townsend Company. cultivar: MILKANOV. other  
id: 80/94. source: Orig. ILCA no. Perennial. Cultivar.  
Seed.

PI 517512 donor id: ILCA 7049. origin: UNKNOWN. origin institute:  
FAO-PNUD. other id: N 77155. Perennial. Wild. Seed.

PI 517513 donor id: ILCA 7060. origin: Ethiopia. Perennial.  
Wild. Seed.

PI 517514 donor id: ILCA 7387. origin: Ethiopia. origin  
institute: Wesfarmers. Perennial. Wild. Seed.

PI 517502 to 517516-continued

PI 517515 donor id: ILCA 11623. origin: Ethiopia. Perennial.  
Wild. Seed.

PI 517516 donor id: ILCA 12547. origin: South Africa. origin  
institute: DAF. Perennial. Wild. Seed.

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 donor id: ILCA 5791. origin: Ethiopia. collector: S.  
Wachafo. locality: Clay loam, near shed, Institute of  
Agricultural Research (IAR), Holletta, Shewa. latitude:  
09 deg. 03 min. N. longitude: 38 deg. 30 min. E.  
elevation: 2400m. remarks: Plants herbaceous, 30cm tall.  
Annual rainfall 1100mm. Soil pH 5.8. Annual. Wild.  
Seed.

PI 517518 donor id: ILCA 5799. origin: Ethiopia. collector: J.  
Kahurananga, A. Ahmed. locality: Clay, below large  
village on rocky hill, 78km E of Addis Ababa, on road to  
Debre Berhan, Shewa. latitude: 09 deg. 22 min. N.  
longitude: 39 deg. 22 min. E. elevation: 2900m.  
remarks: Plants 40cm tall. Annual rainfall 1100mm. Soil  
pH 5.6. Annual. Wild. Seed.

PI 517519 donor id: ILCA 5801. origin: Ethiopia. Annual. Wild.  
Seed.

PI 517520 donor id: ILCA 5813. origin: Ethiopia. collector: S.  
Wachafo. locality: Clay, behind workshop, ILCA HQ,  
Shola, Addis Ababa, Shewa. latitude: 09 deg. 02 min. N.  
longitude: 38 deg. 45 min. E. elevation: 2380m.  
remarks: Plants 2cm tall. Annual rainfall 1100mm. Soil pH  
5.0. Annual. Wild. Seed.

PI 517521 donor id: ILCA 6217. origin: Ethiopia. collected:  
November 03, 1981. collector: J. Kahurananga, S.  
Wachefo. locality: Clay, ILCA HQ, forage plots, Shewa.  
latitude: 09 deg. 02 min. N. longitude: 38 deg. 45 min.  
E. elevation: 2380m. remarks: Plants 25cm tall. Annual  
rainfall 1100mm. Soil pH 5.3. Annual. Wild. Seed.

PI 517522 donor id: ILCA 6218. origin: Ethiopia. Annual. Wild.  
Seed.

PI 517517 to 517577-continued

- PI 517523 **donor id:** ILCA 6229. **origin:** Ethiopia. **collector:** J. Kahurananga. **locality:** Clay, behind old barn site behind residential houses, ILCA HQ, Shola, Addis Ababa, Shewa. **latitude:** 09 deg. 02 min. N. **longitude:** 38 deg. 45 min. E. **elevation:** 2380m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1100mm. Soil pH 5.6. Annual. Wild. Seed.
- PI 517524 **donor id:** ILCA 6254. **origin:** Ethiopia. **collector:** J. Kahurananga, A. Ahmed. **other id:** 5740. **source:** Orig. ILCA no. **locality:** Clay, below village on rocky hill, 78km E of Addis Ababa on road to Debre Berhan, Shewa. **latitude:** 09 deg. 22 min. N. **longitude:** 39 deg. 22 min. E. **elevation:** 2900m. **remarks:** Plants 30cm tall. Annual rainfall 1000mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517525 **donor id:** ILCA 6260. **origin:** Ethiopia. **collector:** H. Kano. **other id:** 5723. **source:** Orig. ILCA no. **locality:** Clay, IAR Holetta, 40km W of Addis Ababa. **latitude:** 09 deg. 03 min. N. **longitude:** 38 deg. 30 min. E. **elevation:** 2400m. **remarks:** Plants herbaceous, 40cm tall. Annual rainfall 1100mm. Soil pH 5.8. Annual. Wild. Seed.
- PI 517526 **donor id:** ILCA 7706. **origin:** Ethiopia. **collected:** January 19, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Loam, Gozamin, Debre Markos, Gojam. **latitude:** 10 deg. 18 min. N. **longitude:** 37 deg. 50 min. E. **elevation:** 2470m. **remarks:** Plants herbaceous, 25cm tall. Annual rainfall 1200mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517527 **donor id:** ILCA 7826. **origin:** Ethiopia. **collected:** January 28, 1983. **collector:** S. Mengistu, Y. Hassen. **locality:** Clay, Gubalafto, Yeju, Welo. **latitude:** 11 deg. 45 min. N. **longitude:** 39 deg. 37 min. E. **elevation:** 2880m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1200mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517528 **donor id:** ILCA 8002. **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. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.

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, Kimbibit, 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, 40-60cm 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 517536 donor id: ILCA 8247. origin: Ethiopia. collected: November 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, horse bean field, 20km from ILCA on right side of road about 18m off road, Bereh, Menagesha, Shewa. latitude: 09 deg. 05 min. N. longitude: 38 deg. 10 min. E. elevation: 2430m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517537 donor id: ILCA 8278. origin: Ethiopia. Annual. Wild. Seed.
- PI 517538 donor id: ILCA 8323. origin: Ethiopia. collected: December 01, 1982. locality: Silt, Adis Alem, Menagesha, Shewa. latitude: 09 deg. 03 min. N. longitude: 38 deg. 12 min. E. elevation: 2390m. remarks: Plants herbaceous, 40cm tall. Annual rainfall 1500mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517539 donor id: ILCA 8326. origin: Ethiopia. collected: December 01, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Adis Alem, Menagesha, Shewa. latitude: 09 deg. 00 min. N. longitude: 38 deg. 17 min. E. elevation: 2200m. remarks: Plants herbaceous, 30-40cm tall. Annual rainfall 1500mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517540 donor id: ILCA 8333. origin: Ethiopia. Annual. Wild. Seed.
- PI 517541 donor id: ILCA 8377. origin: Ethiopia. collected: December 03, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loam, Cheliya, Jibat & Mecha, Shewa. latitude: 08 deg. 59 min. N. longitude: 37 deg. 21 min. E. elevation: 1800m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1500mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517542 donor id: ILCA 8424. origin: Ethiopia. collected: December 06, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loam, Gechi, Buno Bedile, Ilubabor. latitude: 08 deg. 13 min. N. longitude: 36 deg. 27 min. E. elevation: 2180m. remarks: Plants herbaceous, 60cm tall. Annual rainfall 2000mm Soil pH 5.0. Annual. Wild. Seed.
- PI 517543 donor id: ILCA 8443. origin: Ethiopia. Annual. Wild. Seed.

PI 517517 to 517577-continued

- PI 517544 **donor id:** ILCA 8445. **origin:** Ethiopia. **collected:** December 07, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Loam, Kersa, Jima, Kefa. **latitude:** 07 deg. 41 min. N. **longitude:** 36 deg. 55 min. E. **elevation:** 1700m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1500mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517545 **donor id:** ILCA 8506. **origin:** Ethiopia. **collected:** November 03, 1982. **collector:** J. Kahurananga, A. Ahmed. **locality:** Clay, Wayu, 93km N of Addis Ababa on the road to Gojjam, 10km E of road, Shewa. **latitude:** 09 deg. 38 min. N. **longitude:** 38 deg. 50 min. E. **elevation:** 2670m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1100mm. Soil pH 6.2. Annual. Wild. Seed.
- PI 517546 **donor id:** ILCA 8545. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517547 **donor id:** ILCA 8599. **origin:** Ethiopia. **collected:** December 17, 1982. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **collector id:** SM-4-197-A. **locality:** Clay loam, 235km from Addis Ababa towards Bale Goba via Asela, 60km next to Asela at entrance of town of Bekoji, fenced experimental site of Arsi Agricultural Development Unit, Limu & Bilbilo, Chilalo, Arsi. **latitude:** 07 deg. 33 min. N. **longitude:** 39 deg. 15 min. E. **elevation:** 2850m. **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 1200mm. Soil pH 5.0. Growth very good. Seed collected from several plants. Annual. Wild. Seed.
- PI 517548 **donor id:** ILCA 8638. **origin:** Ethiopia. **collected:** December 20, 1982. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Loam, Kofele, Chilalo, Arsi. **latitude:** 07 deg. 08 min. N. **longitude:** 38 deg. 50 min. E. **elevation:** 2690m. **remarks:** Plants 30cm tall. Annual rainfall 1200mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517549 **donor id:** ILCA 8679. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517550 **donor id:** ILCA 8768. **origin:** Ethiopia. **collected:** December 29, 1982. **collector:** S. Mengistu, A. Ahmed, Y. Hassen. **locality:** Silt, Lemu, Kembata, Shewa. **latitude:** 07 deg. 40 min. N. **longitude:** 37 deg. 58 min. E. **elevation:** 2200m. **remarks:** Plants herbaceous, 30-40cm tall. Annual rainfall 1000mm. Soil pH 6.0. Annual. Wild. Seed.

PI 517517 to 517577-continued

- PI 517551 **donor id:** ILCA 9369. **origin:** Ethiopia. **collector:** A. Ahmed, S. Wachabo. **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. 52 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. **collector id:** SM-6-06-B. **locality:** Loam, protected reforestation hillside, 1 km 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. Annual. Wild. Seed.
- 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. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Dense growth. Soil pH 7.5. Annual. Wild. Seed.

PI 517517 to 517577-continued

- PI 517557 **donor id:** ILCA 9723. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, 91.4km from Addis Ababa towards Debre Markos, 2km next to Debre Tsige, Debre Libanos, Debre Markos, Gojam. **latitude:** 09 deg. 39 min. N. **longitude:** 38 deg. 49 min. E. **elevation:** 2670m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517558 **donor id:** ILCA 9768. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sand, 341km from Addis Ababa towards Negele Borana, 6.3km next to Aleta Wondo, Aleta Wondo, Sidamo, Sidamo. **latitude:** 06 deg. 35 min. N. **longitude:** 38 deg. 38 min. E. **elevation:** 2380m. **remarks:** Plants herbaceous, 40cm tall. Annual rainfall 1500mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517559 **donor id:** ILCA 9783. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517560 **donor id:** ILCA 9955. **origin:** Ethiopia. **collected:** November 15, 1983. **collector:** S. Mengistu. **locality:** Clay loam, 56.7km from Addis Ababa towards Jima, 2km towards Teji, 300m on right side of road, Becho, Chebo & Gurage, Shewa. **latitude:** 08 deg. 49 min. N. **longitude:** 38 deg. 22 min. E. **elevation:** 2120m. **remarks:** Plants herbaceous, 42cm tall. Annual rainfall 1000m. Soil pH 7.0. Annual. Wild. Seed.
- PI 517561 **donor id:** ILCA 10001. **origin:** Ethiopia. **collected:** November 18, 1983. **collector:** S. Mengistu. **locality:** Sand, 382.3km from Addis Ababa towards Bonga, 50km next to Jima, 2.7km before Shebe, Sebek area on sloped roadside just before descent to valley, Seka, Jima, Kefa. **latitude:** 07 deg. 32 min. N. **longitude:** 36 deg. 31 min. E. **elevation:** 1980m. **remarks:** Plants herbaceous, 90cm tall. Annual rainfall 1500mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517562 **donor id:** ILCA 10022. **origin:** Ethiopia. **collected:** November 19, 1983. **collector:** S. Mengistu. **collector id:** SM-7-27-A. **locality:** Loam, hilly area on left side of road, 433.5km from Addis Ababa towards Bedele via Jima, 25.7km before Gecha, Gechi, Buno Bedele, Kefa. **latitude:** 08 deg. 09 min. N. **longitude:** 36 deg. 28 min. E. **elevation:** 2250m. **remarks:** Plants herbaceous, 50cm tall. Annual rainfall 1800mm. Soil pH 5.1. Annual. Wild. Seed.
- PI 517563 **donor id:** ILCA 10090. **origin:** Ethiopia. Annual. Wild. Seed.



PI 517517 to 517577-continued

- PI 517564 donor id: ILCA 10114. origin: Ethiopia. Annual. Wild. Seed.
- PI 517565 donor id: ILCA 10122. origin: Ethiopia. collected: November 25, 1983. collector: S. Mengistu. locality: Sandy loam, 200km from Addis Ababa towards Fincha dam, 6.4km from Gedo Tafese Alenga Kebele, Cheliya, Jibat & Mecha, Shewa. latitude: 09 deg. 04 min. N. longitude: 37 deg. 24 min. E. elevation: 1740m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1500mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517566 donor id: ILCA 10127. origin: Ethiopia. Annual. Wild. Seed.
- PI 517567 donor id: ILCA 10131. origin: Ethiopia. collector: S. Mengistu. locality: Clay, right side of small bridge, 107.7km from Addis Ababa towards Ambo, Bolo Kebele, 17km before Ambo, Ambo Akababi, Jibat & Mecha, Shewa. latitude: 08 deg. 58 min. N. longitude: 37 deg. 57 min. E. elevation: 2470m. remarks: Plants herbaceous, 60cm tall. Annual rainfall 1200mm. Soil pH 6.2. Annual. Wild. Seed.
- PI 517568 donor id: ILCA 10135. origin: Ethiopia. Annual. Wild. Seed.
- PI 517569 donor id: ILCA 10147. origin: Ethiopia. collected: November 26, 1983. collector: S. Mengistu. collector id: SM-7-69-C. locality: Sandy, cropland on both sides of road, 8km from Holeta towards Muger, Addis Alem, Menagesha, Shewa. latitude: 09 deg. 09 min. N. longitude: 38 deg. 27 min. E. elevation: 2620m. remarks: Plants herbaceous, 40cm tall. Annual rainfall 1500mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517570 donor id: ILCA 10151. origin: Ethiopia. Annual. Wild. Seed.
- PI 517571 donor id: ILCA 10152. origin: Ethiopia. collected: November 26, 1983. collector: S. Mengistu. collector id: SM-7-71-A. locality: Loam, 80km from Addis Ababa towards Muger, 30km next to Holeta, Ketema Maru village, Addis Alem, Menagesha, Shewa. latitude: 09 deg. 16 min. N. longitude: 38 deg. 24 min. E. elevation: 2660m. remarks: Plants herbaceous, 50cm tall. Annual rainfall 1500mm. Annual. Wild. Seed.

PI 517517 to 517577-continued

- PI 517572 **donor id:** ILCA 10224. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Loam, Gobi animal breeding station located, 11km NW of Kofele, Gobe, Chilalo, Arsi. **latitude:** 07 deg. 09 min. N. **longitude:** 38 deg. 51 min. E. **elevation:** 2740m. **remarks:** Plants herbaceous, 50cm. Annual rainfall 1200mm. Soil pH 4.0. Annual. Wild. Seed.
- PI 517573 **donor id:** ILCA 10242. **origin:** Ethiopia. **collector:** S. Mengistu, A. Russell Smith. **locality:** Sand, near ETCA km sign post on left side of road, 17km from Dilla, Wonago, Gedio, Sidamo. **latitude:** 06 deg. 18 min. N. **longitude:** 38 deg. 15 min. E. **elevation:** 1960m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1400mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517574 **donor id:** ILCA 10249. **origin:** Ethiopia. **collected:** December 20, 1983. **collector:** S. Mengistu. **locality:** Loam, 414.6km from Addis Ababa towards Moyale, 19.7km from Yirga Chefe, Fisiha Genet, Gedio, Sidamo. **latitude:** 06 deg. 06 min. N. **longitude:** 38 deg. 16 min. E. **elevation:** 2570m. **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 1600mm. Annual. Wild. Seed.
- PI 517575 **donor id:** ILCA 10866. **origin:** Ethiopia. **collector:** Aklilu. **locality:** Clay loam. **latitude:** 08 deg. 45 min. N. **longitude:** 38 deg. 57 min. E. **elevation:** 1800m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 800mm. Soil pH 5.8. Annual. Wild. Seed.
- PI 517576 **donor id:** ILCA 10910. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517577 **donor id:** ILCA 11552. **origin:** Ethiopia. **collector:** J. Kahurananga, A. Ahmed. Annual. Wild. Seed.

PI 517578 to 517598. *Trifolium schimperii* A. Rich. FABACEAE

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

- PI 517578 **donor id:** ILCA 6290. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517579 **donor id:** ILCA 7615. **origin:** Ethiopia. **collected:** January 14, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay, Kuyu, Selale, Shewa. **latitude:** 09 deg. 53 min. N. **longitude:** 38 deg. 23 min. E. **elevation:** 2560m. **remarks:** Plants herbaceous, 5-10cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.

PI 517578 to 517598-continued

- PI 517580 **donor id:** ILCA 7627. **origin:** Ethiopia. **collected:** January 15, 1983. **collector:** A. Ahmed, S. Mengistu, Y. Hassen. **locality:** Clay, Dejen, Debre Markos, Gojam. **latitude:** 10 deg. 11 min. N. **longitude:** 38 deg. 08 min. E. **elevation:** 2420m. **remarks:** Plants herbaceous, 5-10cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517581 **donor id:** 7653. **origin:** Ethiopia. **collected:** January 16, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay loam, Hulet Inese, Mota, Gojam. **latitude:** 10 deg. 58 min. N. **longitude:** 37 deg. 55 min. E. **elevation:** 2520m. **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 1500mm Soil pH 5.5. Annual. Wild. Seed.
- PI 517582 **donor id:** ILCA 7653. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517583 **donor id:** ILCA 7661. **origin:** Ethiopia. **collected:** January 17, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay, Debay Tilatgen, Bichena, Gojam. **latitude:** 10 deg. 15 min. N. **longitude:** 38 deg. 08 min. E. **elevation:** 2510m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517584 **donor id:** ILCA 7676. **origin:** Ethiopia. **collected:** January 18, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay, Dejen, Debre Markos, Gojam. **latitude:** 10 deg. 14 min. N. **longitude:** 38 deg. 06 min. E. **elevation:** 2400m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1200mm Soil pH 6.0. Annual. Wild. Seed.
- PI 517585 **donor id:** 7684. **origin:** Ethiopia. **collected:** January 18, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay loam, Awabel, Debre Markos, Gojam. **latitude:** 10 deg. 16 min. N. **longitude:** 37 deg. 57 min. E. **elevation:** 2490m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1200mm Soil pH 6.0. Annual. Wild. Seed.
- PI 517586 **donor id:** ILCA 7745. **origin:** Ethiopia. Annual. Wild. Seed.

PI 517578 to 517598-continued

- PI 517587 donor id: ILCA 7748. origin: Ethiopia. collected: January 23, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Sandy loam, Gonder Zwia, Gonder, Gonder. latitude: 12 deg. 36 min. N. longitude: 37 deg. 27 min. E. elevation: 2140m. remarks: Plants herbaceous, 15-20cm tall. Annual rainfall 1200mm Soil pH 7.0. Annual. Wild. Seed.
- PI 517588 donor id: ILCA 8089. origin: Ethiopia. Annual. Wild. Seed.
- PI 517589 donor id: ILCA 8451. origin: Ethiopia. collected: December 07, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Tiro Afeta, Jima, Kefa. latitude: 07 deg. 45 min. N. longitude: 37 deg. 14 min. E. elevation: 1740m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1500mm Soil pH 4.5. Annual. Wild. Seed.
- PI 517590 donor id: ILCA 8481. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Becho, Menagesha, Shewa. latitude: 08 deg. 39 min. N. longitude: 38 deg. 07 min. E. elevation: 2300m. remarks: Plants herbaceous, 25cm tall. Annual rainfall 1100mm Soil pH 8.0. Annual. Wild. Seed.
- PI 517591 donor id: ILCA 8484. origin: Ethiopia. Annual. Wild. Seed.
- PI 517592 donor id: ILCA 8486. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Becho, Chebo & Gurage, Shewa. latitude: 08 deg. 43 min. N. longitude: 38 deg. 16 min. E. elevation: 2120m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517593 donor id: ILCA 9699. origin: Ethiopia. collected: November 03, 1983. collector: S. Mengistu. collector id: SM-6-08-A. locality: Loam, Yenora collective farm campus, 11km from Dejen, Dejen, Debre Markos, Gojam. latitude: 10 deg. 15 min. N. longitude: 38 deg. 06 min. E. elevation: 2400m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Soil pH 7.5. Annual. Wild. Seed.

PI 517578 to 517598-continued

- PI 517594 donor id: ILCA 9703. origin: Ethiopia. collected: November 03, 1983. collector: S. Mengistu. collector id: SM-6-09-A. locality: Clay, 9km next to Dejen on right side of road, Dejen, Debre Markos, Gojam. latitude: 10 deg. 13 min. N. longitude: 38 deg. 08 min. E. elevation: 2500m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1100mm. Annual. Wild. Seed.
- PI 517595 donor id: ILCA 9711. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, plain field on right side of road, 15km before Goha Tsion, Abv Berdara peasant village, Shewa. latitude: 09 deg. 55 min. N. longitude: 38 deg. 20 min. E. elevation: 2560m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1000mm Soil pH 5.5. Annual. Wild. Seed.
- PI 517596 donor id: ILCA 9958. origin: Ethiopia. collected: November 15, 1983. collector: S. Mengistu. collector id: SM-7-02-A. locality: Clay, 76.4km from Addis Ababa S to Jima, 16.4km next to Asgore, Becho, Chebo & Gurage, Shewa. latitude: 08 deg. 41 min. N. longitude: 38 deg. 14 min. E. elevation: 2200m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1000mm Soil pH 7.0. Annual. Wild. Seed.
- PI 517597 donor id: ILCA 9963. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, crop land on left side of road, 88.2km from Addis Ababa towards Jimma, coticha locality, Becho, Chebo & Gurage, Shewa. latitude: 08 deg. 39 min. N. longitude: 38 deg. 08 min. E. elevation: 2370m. remarks: Plants herbaceous, 18cm tall. Annual rainfall 1200mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517598 donor id: ILCA 9967. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, 119.4km from Addis Ababa towards Jimma, 6km next to Woliso, Gurura area, Woliso, Chebo & Gurage, Shewa. latitude: 08 deg. 30 min. N. longitude: 37 deg. 57 min. E. elevation: 2000m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 6.5. Annual. Wild. Seed.

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 517599 donor id: ILCA 6245. origin: Ethiopia. Annual. Wild. Seed.

PI 517599 to 517674-continued

- 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. **remarks:** Plants herbaceous, creeping, 5cm tall. Annual rainfall 930mm. Soil pH 6.5. Annual. Wild. Seed.
- 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. **remarks:** Plants herbaceous, 5-10cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- 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. **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 1000mm. Soil pH 8.0. Annual. Wild. Seed.
- 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. **remarks:** Plants herbaceous, 10cm tall. Annual rainfall 1300mm. Collected from several plants. Soil pH 8.0. Annual. Wild. Seed.
- 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. **remarks:** Plants herbaceous, 10cm tall. Annual rainfall 1200mm. Soil pH 8.0. Annual. Wild. Seed.

PI 517599 to 517674-continued

- PI 517608 **donor id:** ILCA 7669. **origin:** Ethiopia. **collected:** January 17, 1983. **collector:** A. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay, Debay Tiltagne, Bichena, Gojam. **latitude:** 10 deg. 30 min. N. **longitude:** 37 deg. 57 min. E. **elevation:** 2650m. **remarks:** Plants 10cm tall. Annual rainfall 1200mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517609 **donor id:** ILCA 7795. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517610 **donor id:** ILCA 7822. **origin:** Ethiopia. **collected:** January 28, 1983. **collector:** S. Mengistu, Y. Hussen, A. Ahmed. **locality:** Clay, Gudalafto, Yeju, Welo. **latitude:** 11 deg. 45 min. N. **longitude:** 39 deg. 37 min. E. **elevation:** 2880m. **remarks:** Plants herbaceous, 10cm tall. Annual rainfall 1200mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517611 **donor id:** ILCA 7841. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517612 **donor id:** ILCA 7865. **origin:** Ethiopia. **collected:** January 31, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay, Adela Wedib, Zuriya, Welo. **latitude:** 11 deg. 17 min. N. **longitude:** 39 deg. 31 min. E. **elevation:** 2640m. **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:** February 01, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay loam, Wereilu, Wereilu, Welo. **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 **donor id:** ILCA 8000. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517615 **donor id:** ILCA 8016. **origin:** Ethiopia. **collected:** November 02, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Angolela & Tera, Tegulet & Bulga, Shewa. **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.

PI 517599 to 517674-continued

- PI 517616 donor id: ILCA 8025. origin: Ethiopia. collected: November 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sand, Ankober, Tegulet & Bulga, Shewa. latitude: 09 deg. 34 min. N. longitude: 39 deg. 45 min. E. elevation: 2680m. remarks: Plants herbaceous, 2cm tall. Annual rainfall 1100mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517617 donor id: ILCA 8038. origin: Ethiopia. collected: November 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sandy loam, near church at top point and end of Seladingay road, 196.9km from ILCA at Seladingay, Moja & Wadera, Tegulet & Bulga, Shewa. latitude: 09 deg. 52 min. N. longitude: 39 deg. 37 min. E. elevation: 2800m. remarks: Plants herbaceous, 2-6cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517618 donor id: ILCA 8048. 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, 5cm tall. Annual rainfall 1800mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517619 donor id: ILCA 8051. origin: Ethiopia. collector: L. Akundabweni, S. Mengistu. locality: Sand, Baso & Werena, Tegulet & Bulga, Shewa. latitude: 09 deg. 50 min. N. longitude: 39 deg. 44 min. E. elevation: 2900m. remarks: Plants herbaceous, 5-8cm tall. Annual rainfall 2000mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517620 donor id: ILCA 8057. origin: Ethiopia. Annual. Wild. Seed.
- PI 517621 donor id: ILCA 8062. origin: Ethiopia. collected: November 06, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sandy loam, Sayadebir & Wayu, Tegulet & Bulga, Shewa. latitude: 09 deg. 45 min. N. longitude: 39 deg. 11 min. E. elevation: 2620m. remarks: Plants herbaceous, 5cm tall. Annual rainfall 900mm. Annual. Wild. Seed.
- PI 517622 donor id: ILCA 8064. origin: Ethiopia. collected: November 06, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, grazed area, 181.4km from ILCA towards Jihur in Albasa area along road side edges beyond Ineweri, Moret & Jiru, Tegulet & Bulga, Shewa. latitude: 09 deg. 50 min. N. longitude: 39 deg. 12 min. E. elevation: 2650m. remarks: Plants 10cm tall. Annual rainfall 900mm. Annual. Wild. Seed.



PI 517599 to 517674-continued

- PI 517623 donor id: ILCA 8075. origin: Ethiopia. Annual. Wild. Seed.
- PI 517624 donor id: ILCA 8079. origin: Ethiopia. collected: November 30, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sand, Adis Alem, Menagesha, Shewa. latitude: 09 deg. 03 min. N. longitude: 38 deg. 35 min. E. elevation: 2410m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1300mm. Annual. Wild. Seed.
- PI 517625 donor id: ILCA 8083. origin: Ethiopia. collected: December 01, 1982. collector: L. Akundabweni, S. Mengistu. locality: Silt, Adis Alem, Menagesha, Shewa. latitude: 09 deg. 03 min. N. longitude: 38 deg. 12 min. E. elevation: 2390m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1500mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517626 donor id: ILCA 8107. origin: Ethiopia. collected: November 12, 1982. collector: L. Akundabweni, S. Menistu. locality: Clay loam, Tiyo, Chilalo, Arsi. latitude: 07 deg. 54 min. N. longitude: 39 deg. 08 min. E. elevation: 2170m. remarks: Plants herbaceous, 8cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517627 donor id: ILCA 8113. origin: Ethiopia. Annual. Wild. Seed.
- PI 517628 donor id: ILCA 8117. origin: Ethiopia. collected: November 11, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Hitosa, Chilalo, Arsi. latitude: 08 deg. 09 min. N. longitude: 39 deg. 14 min. E. elevation: 2128m. remarks: Plants herbaceous, 5cm tall. Annual rainfall 800mm. Soil pH 7.5. Annual. Wild. Seed.
- PI 517629 donor id: ILCA 8122. 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. 07 min. E. elevation: 2440m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517630 donor id: ILCA 8132. origin: Ethiopia. collected: November 13, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Limu & Bilibilo, Chilalo, Arsi. latitude: 07 deg. 40 min. N. longitude: 39 deg. 10 min. E. elevation: 2340m. remarks: Plants herbaceous, 5-10cm tall. Annual rainfall 900mm. Soil pH 4.0. Annual. Wild. Seed.

PI 517599 to 517674-continued

- PI 517631 donor id: ILCA 8138. origin: Ethiopia. Annual. Wild. Seed.
- PI 517632 donor id: ILCA 8141. origin: Ethiopia. collected: November 13, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Limu & Bilbilo, Arsi. latitude: 07 deg. 32 min. N. longitude: 39 deg. 15 min. E. elevation: 2660m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517633 donor id: ILCA 8145. origin: Ethiopia. collected: November 13, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Limu & Bilbilo, Chilalo, Arsi. latitude: 07 deg. 28 min. N. longitude: 39 deg. 15 min. E. elevation: 2760m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517634 donor id: ILCA 8159. origin: Ethiopia. collected: November 14, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Gedeb, Chilalo, Arsi. latitude: 07 deg. 05 min. N. longitude: 39 deg. 11 min. E. elevation: 2300m. remarks: Plants herbaceous, 5cm tall. Annual rainfall 700mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517635 donor id: ILCA 8160. origin: Ethiopia. collected: November 14, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Dodola, Genale, Bale. latitude: 06 deg. 59 min. N. longitude: 39 deg. 09 min. E. elevation: 2330m. remarks: Plants herbaceous, 2.0cm tall. Annual rainfall 900mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517636 donor id: ILCA 8169. origin: Ethiopia. Annual. Wild. Seed.
- PI 517637 donor id: ILCA 8171. origin: Ethiopia. collected: November 15, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Adaba, Genale, Bale. latitude: 07 deg. 02 min. N. longitude: 39 deg. 29 min. E. elevation: 2430m. remarks: Plants herbaceous, 5-10cm tall. Annual rainfall 950mm. Soil pH 6.5. Annual. Wild. Seed.

PI 517599 to 517674-continued

- PI 517638 donor id: ILCA 8187. origin: Ethiopia. collected: November 16, 1982. collector: L. Akundabweni, S. Mengistu. locality: Silt, Sinana, Bale. latitude: 07 deg. 07 min. N. longitude: 39 deg. 00 min. E. elevation: 2400m. remarks: Plants herbaceous, 5cm tall. Annual rainfall 1000mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517639 donor id: ILCA 8191. origin: Ethiopia. Annual. Wild. Seed.
- PI 517640 donor id: ILCA 8197. origin: Ethiopia. collected: November 16, 1982. collector: L. Akundabweni, S. Mengistu. locality: Silty loam, Sinana, Medayu, Bale. latitude: 07 deg. 07 min. N. longitude: 39 deg. 52 min. E. elevation: 2630m. remarks: Plants herbaceous, 5-10cm. Annual rainfall 1000mm. Soil 5.5. Annual. Wild. Seed.
- PI 517641 donor id: ILCA 8250. origin: Ethiopia. Annual. Wild. Seed.
- PI 517642 donor id: ILCA 8253. origin: Ethiopia. Annual. Wild. Seed.
- PI 517643 donor id: ILCA 8507. origin: Ethiopia. collector: J. Kahurananga, A. Ahmed. locality: Clay loam, Shewa. latitude: 09 deg. 46 min. N. longitude: 38 deg. 44 min. E. elevation: 2730m. remarks: Plants herbaceous. Annual rainfall 1200mm. Annual. Wild. Seed.
- PI 517644 donor id: ILCA 8516. origin: Ethiopia. Annual. Wild. Seed.
- PI 517645 donor id: ILCA 8548. origin: Ethiopia. Annual. Wild. Seed.
- PI 517646 donor id: ILCA 8596. origin: Ethiopia. collected: December 17, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay, Digelu & Tijo, Chelalo, Arsi. latitude: 07 deg. 37 min. N. longitude: 39 deg. 13 min. E. elevation: 2480m. remarks: Plants herbaceous, 10-15cm tall. Annual rainfall 900mm Soil pH 6.0. Annual. Wild. Seed.
- PI 517647 donor id: ILCA 8597. origin: Ethiopia. collected: December 17, 1982. collector: S. Mengistu, A. Ahmed. locality: Clay, Digelu & Tijo, Chilalo, Arsi. latitude: 07 deg. 34 min. N. longitude: 39 deg. 15 min. E. elevation: 2650m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517599 to 517674-continued

- PI 517648 donor id: ILCA 8603. origin: Ethiopia. Annual. Wild. Seed.
- PI 517649 donor id: ILCA 8606. origin: Ethiopia. collected: December 18, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay loam, Adaba, Genale, Bale. latitude: 07 deg. 03 min. N. longitude: 39 deg. 11 min. E. elevation: 2640m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 700mm Soil pH 5.5. Annual. Wild. Seed.
- PI 517650 donor id: ILCA 8630. origin: Ethiopia. collected: December 20, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Loam, Dinshu, Goba, Bale. latitude: 07 deg. 06 min. N. longitude: 39 deg. 47 min. E. elevation: 2660m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 950mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517651 donor id: ILCA 8763. origin: Ethiopia. collected: December 29, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Silt, Timbaro (Tiro), Kembata, Shewa. latitude: 07 deg. 27 min. N. longitude: 37 deg. 57 min. E. elevation: 2250m. remarks: Plants herbaceous, 5-10cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517652 donor id: ILCA 8777. origin: Ethiopia. Annual. Wild. Seed.
- PI 517653 donor id: ILCA 9225. origin: Ethiopia. Annual. Wild. Seed.
- PI 517654 donor id: ILCA 9388. origin: Ethiopia. Annual. Wild. Seed.
- PI 517655 donor id: ILCA 9706. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, Abu Berdara peasant village, field on right side of road, 15km before Goha Tsion, Shewa. latitude: 09 deg. 55 min. N. longitude: 38 deg. 20 min. E. elevation: 2560m. remarks: Plants herbaceous, 7cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517656 donor id: ILCA 9716. origin: Ethiopia. Annual. Wild. Seed.

PI 517599 to 517674-continued

- PI 517657 **donor id:** ILCA 9725. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, 91.4km from Addis Ababa towards Debre Markos, 2km next to Debre Tsige, Debre Libanos, Debre Markos, Gojam. **latitude:** 09 deg. 39 min. N. **longitude:** 38 deg. 49 min. E. **elevation:** 2670m. **remarks:** Plants herbaceous, 5cm tall. Annual rainfall 1200mm Soil pH 7.0. Annual. Wild. Seed.
- PI 517658 **donor id:** ILCA 9770. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517659 **donor id:** 9957. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Clay loam, 56.7km from Addis Ababa towards Jimma 2km next to Teji, Becho, Chebo & Gurage, Shewa. **latitude:** 08 deg. 49 min. N. **longitude:** 38 deg. 22 min. E. **elevation:** 2120m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517660 **donor id:** ILCA 9962. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517661 **donor id:** ILCA 10145. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517662 **donor id:** ILCA 10155. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, along small stream, 1 km before Enchine town, 90km from Addis Ababa towards Muger, 40km from Holeta, Addis Alem, Menagesha, Shewa. **latitude:** 09 deg. 18 min. N. **longitude:** 38 deg. 22 min. E. **elevation:** 2640m. **remarks:** Plants herbaceous, 8cm tall. Annual rainfall 1500mm. Annual. Wild. Seed.
- PI 517663 **donor id:** ILCA 10158. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Clay loam, 150.2km from Addis Ababa towards Robe of Arussi, 2.4km from Eteya, Hitosa, Chilalo, Arsi. **latitude:** 08 deg. 08 min. N. **longitude:** 39 deg. 17 min. E. **elevation:** 2220m. **remarks:** Plants herbaceous, 12cm tall. Annual rainfall 950mm. Annual. Wild. Seed.
- PI 517664 **donor id:** ILCA 10162. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517665 **donor id:** ILCA 10173. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Clay loam, 46km next to Assela, 10km before Bekoji, Chilalo, Arsi. **latitude:** 07 deg. 36 min. N. **longitude:** 39 deg. 14 min. E. **elevation:** 2640m. **remarks:** Plants herbaceous, 80cm tall. Annual rainfall 1000mm. Soil pH 3.0. Annual. Wild. Seed.

PI 517599 to 517674-continued

- PI 517666 **donor id:** ILCA 10178. **origin:** Ethiopia. **Annual.** **Wild.** **Seed.**
- PI 517667 **donor id:** ILCA 10188. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sandy loam, 330.2km from Addis Ababa towards Bale Goba via Shashemane, 10.2km next to Dadola, Dadola, Genale, Bale. **latitude:** 07 deg. 00 min. N. **longitude:** 39 deg. 14 min. E. **elevation:** 2480m. **remarks:** Plants 10cm tall. Annual rainfall 900mm. Soil pH 5.5. **Annual.** **Wild.** **Seed.**
- PI 517668 **donor id:** ILCA 10190. **origin:** Ethiopia. **collected:** December 15, 1983. **collector:** S. Mengistu. **collector id:** SM-8-12-A. **locality:** Clay loam, left side of road, 358.1km from Addis Ababa towards Bale Goba via Shashemane, 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. **Annual.** **Wild.** **Seed.**
- PI 517669 **donor id:** ILCA 10202. **origin:** Ethiopia. **Annual.** **Wild.** **Seed.**
- 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 517671 **donor id:** ILCA 10213. **origin:** Ethiopia. **collected:** December 17, 1983. **collector:** S. Mengistu. **collector id:** SM-8-20-B. **locality:** Sand, right side of road, 460.8km from Addis Ababa towards Ginir, 25.4km next to Robe, Goba, Mendoyu, Bale. **latitude:** 07 deg. 18 min. N. **longitude:** 40 deg. 09 min. E. **elevation:** 2480m. **remarks:** Plants herbaceous, 25cm tall. Annual rainfall 950mm Soil pH 8.0. **Annual.** **Wild.** **Seed.**
- PI 517672 **donor id:** ILCA 10215. **origin:** Ethiopia. **collected:** December 17, 1983. **collector:** S. Mengistu. **collector id:** SM-8-21. **locality:** Sandy loam, Gomora locality settlement area on left side of road, 469.6km from Addis Ababa towards Ginir, 34.2km next to Robe, Goro, Mendoyu, Bale. **latitude:** 07 deg. 04 min. N. **longitude:** 40 deg. 16 min. E. **elevation:** 2420m. **remarks:** Plants herbaceous, 5-10cm tall. Annual rainfall 950mm. Soil pH 8.0. **Annual.** **Wild.** **Seed.**
- PI 517673 **donor id:** ILCA 10219. **origin:** Ethiopia. **Annual.** **Wild.** **Seed.**

PI 517599 to 517674-continued

PI 517674 donor id: ILCA 10221. origin: Ethiopia. Annual. Wild. Seed.

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 donor id: ILCA 6282. origin: Ethiopia. collector: J. Kahurananga & A. Ahmed. other id: ILCA 5814. source: Orig. ILCA no.. locality: Clay, ILCA Research station, Debre Berhan W of bottom land area. Shewa. latitude: 09 deg. 40 min. N. longitude: 39 deg. 33 min. E. elevation: 2750m. remarks: Plants erect, 25cm tall. Annual rainfall 1100mm. Soil pH 5.0. Perennial. Wild. Seed.

PI 517676 donor id: ILCA 7783. origin: Ethiopia. Perennial. Wild. Seed.

PI 517677 donor id: ILCA 8021. 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, 10-15cm tall. Annual rainfall 1100mm. Soil pH 5.0. Perennial. Wild. Seed.

PI 517678 donor id: ILCA 8046. origin: Ethiopia. Perennial. Wild. Seed.

PI 517679 donor id: ILCA 8125. origin: Ethiopia. Perennial. Wild. Seed.

PI 517680 donor id: ILCA 8136. origin: Ethiopia. collected: November 13, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Limu & Bilbila, Chilalo, Arsi. latitude: 07 deg. 36 min. N. longitude: 39 deg. 13 min. E. elevation: 2380m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1000mm Soil pH 5.0. Perennial. Wild. Seed.

PI 517681 donor id: ILCA 8150. origin: Ethiopia. Perennial. Wild. Seed.

PI 517675 to 517700-continued

- PI 517682 donor id: ILCA 8219. origin: Ethiopia. collected: November 06, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Moret & Jiru, Tegulet & Bulga, Shewa. latitude: 09 deg. 39 min. N. longitude: 39 deg. 18 min. E. elevation: 2700m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1000mm. Soil pH 7.0. Perennial. Wild. Seed.
- PI 517683 donor id: ILCA 8230. origin: Ethiopia. Perennial. Wild. Seed.
- PI 517684 donor id: ILCA 8237. 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, 15-20cm tall. Annual rainfall 1100mm. Soil pH 5.5. Perennial. Wild. Seed.
- PI 517685 donor id: ILCA 8364. origin: Ethiopia. Perennial. Wild. Seed.
- PI 517686 donor id: ILCA 9060. origin: Ethiopia. collected: October 30, 1983. collector: J. Kahurananga, S. Wachrafo. locality: Clay, Shola, Shewa. latitude: 09 deg. 02 min. N. longitude: 38 deg. 45 min. E. elevation: 2380m. remarks: Plants 30cm tall, with remarkable prostrate spreading habit, unusual to T.simense. Annual rainfall 1100mm. Soil pH 6.0. Perennial. Wild. Seed.
- PI 517687 donor id: ILCA 9685. origin: Ethiopia. collected: November 01, 1983. collector: S. Mengistu. collector id: SM-6-02-A. locality: Loam, Raba park, 295km from Addis Ababa just before reaching Debre Markos, Gojam. latitude: 10 deg. 18 min. N. longitude: 37 deg. 44 min. E. elevation: 2350m. remarks: Plants herbaceous, 25cm tall. Annual rainfall 1300mm. Soil pH 6.0. Perennial. Wild. Seed.
- PI 517688 donor id: ILCA 9693. origin: Ethiopia. collected: November 03, 1983. collector: S. Mengistu. collector id: SM-6-06-A. locality: Loam, 260km from Addis Ababa towards Debre Markos, 1 km before Lumame town center, 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. Soil pH 5.0. Perennial. Wild. Seed.



PI 517675 to 517700-continued

- PI 517689 donor id: ILCA 9709. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, field, right side of road, 15km before Goha Tsion, Abv Berdara peasant village, Gojam. latitude: 09 deg. 55 min. N. longitude: 38 deg. 20 min. E. elevation: 2560m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Soil pH 5.5. Perennial. Wild. Seed.
- PI 517690 donor id: ILCA 9727. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, field protected for hay making on left side of road, 2km next to Muketure, Wuchale, Selale, Shewa. latitude: 09 deg. 33 min. N. longitude: 38 deg. 52 min. E. elevation: 3000m. remarks: Plants herbaceous, 7cm tall. Annual rainfall 1200mm. Soil pH 5.0. Perennial. Wild. Seed.
- PI 517691 donor id: ILCA 9778. origin: Ethiopia. collector: S. Mengistu. locality: Sand, protected site under reforestation, 380km from Addis Ababa towards Kibre Menist, 9.2km next to Hagere Selem, Bore, Jemjem, Sidamo. latitude: 06 deg. 24 min. N. longitude: 38 deg. 36 min. E. elevation: 2800m. remarks: Plants herbaceous, 40cm tall. Annual rainfall 1400mm. Soil pH 5.0. Perennial. Wild. Seed.
- PI 517692 donor id: ILCA 10124. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, near small stream in teff and wheat field, 178.2km from Addis Ababa towards Nekemte, 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, 40cm tall. Annual rainfall 1200mm. Soil 5.5. Perennial. Wild. Seed.
- PI 517693 donor id: ILCA 10142. origin: Ethiopia. collector: S. Mengistu. locality: Clay, bottom land near small bridge, 52.2km from Addis Ababa towards Ambo, 2.2km next to Holeta and 5km before Addis Alem, Menagesha, Shewa. latitude: 9 deg. 14 min. N. longitude: 38 deg. 24 min. E. elevation: 2450m. remarks: Plants herbaceous, 20-30cm tall. Annual rainfall 1500mm. Soil 5.0. Perennial. Wild. Seed.
- PI 517694 donor id: ILCA 10163. origin: Ethiopia. collector: S. Mengistu. locality: Loam, wheat field near small stream, 6.9km next to town of Assela, Tiyo, Chilalao, Arsi. latitude: 07 deg. 53 min. N. longitude: 39 deg. 07 min. E. elevation: 2520m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil 4.5. Perennial. Wild. Seed.

PI 517675 to 517700-continued

- 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 demonstration 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 517702 to 517764-continued

- PI 517702 **donor id:** ILCA 6221. **origin:** Ethiopia. **collected:** October 16, 1981. **collector:** J. Kahurananga, A. Ahmed. **other id:** 5746. **source:** Orig. ILCA no. **locality:** Clay, Debre Zeit bottom land area, 2km N of ILCA offices, Shewa. **latitude:** 08 deg. 45 min. N. **longitude:** 38 deg. 57 min. E. **elevation:** 1800m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 800mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517703 **donor id:** ILCA 6222. **origin:** Ethiopia. **collected:** October 1980. **other id:** 5747. **source:** Orig. ILCA no. **locality:** Clay, Debre Zeit bottom land, Shewa. **latitude:** 08 deg. 45 min. N. **longitude:** 38 deg. 57 min. E. **elevation:** 1800m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 800mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517704 **donor id:** ILCA 6253. **origin:** Ethiopia. **collected:** October 25, 1981. **collector:** J. Kahurananga, S. Wachabo. **locality:** Clay, ILCA HQ, Shola, forage plots near old barn, Shewa. **latitude:** 09 deg. 02 min. N. **longitude:** 38 deg. 45 min. E. **elevation:** 2380m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1100mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517705 **donor id:** ILCA 6261. **origin:** Ethiopia. **collector:** J. Kahurananga, A. Ahmed. **locality:** Clay, bottom land, Debre Zeit, Shewa. **latitude:** 08 deg. 45 min. N. **longitude:** 38 deg. 57 min. E. **elevation:** 1800m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 700mm. Soil pH 5.8. Annual. Wild. Seed.
- PI 517706 **donor id:** ILCA 7614. **origin:** Ethiopia. **collected:** January 14, 1983. **collector:** A. Ahmed, S. Mengistu, Y. Hassen. **collector id:** SM-5-252-D. **locality:** Clay, 166km from Addis Ababa towards Dejen on right side of road, 5-15m from main road, Kuyu, Selale, Shewa. **latitude:** 09 deg. 53 min. N. **longitude:** 38 deg. 23 min. E. **elevation:** 2560m. **remarks:** Plants herbaceous, 8-10cm tall. Annual rainfall 1200mm. Soil pH 6.0. Seed collected from several plants. Annual. Wild. Seed.
- PI 517707 **donor id:** ILCA 7616. **origin:** Ethiopia. Annual. Wild. Seed.

PI 517702 to 517764-continued

- 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 517702 to 517764-continued

- PI 517713 **donor id:** ILCA 7647. **origin:** Ethiopia. **collected:** January 16, 1982. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **collector id:** SM-5-262-A. **locality:** Clay, Ministry of Agriculture demonstration fields, 296km from Addis Ababa towards Mota, 3km next to town of Debre n Markos, Inarge, Bichena. **latitude:** 10 deg. 41 min. N. **longitude:** 38 deg. 11 min. E. **elevation:** 2500m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1500mm Soil pH 8.0. Annual. Wild. Seed.
- PI 517714 **donor id:** ILCA 7652. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517715 **donor id:** ILCA 7658. **origin:** Ethiopia. **collected:** January 16, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **collector id:** SM-5-264-E. **locality:** Clay loam, 369km from Addis Ababa towards Mota, 4km before town of Mota on right side of road, Hulet Inese, Mota, Gojam. **latitude:** 11 deg. 05 min. N. **longitude:** 37 deg. 53 min. E. **elevation:** 2450m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1500mm. Soil pH 6.0. Seeds collected from several plants. Annual. Wild. Seed.
- PI 517716 **donor id:** ILCA 7659. **origin:** Ethiopia. **collected:** January 17, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **collector id:** SM-5-265-A. **locality:** Clay, Debay Tilatgen, Bichena, Gojam. **latitude:** 10 deg. 15 min. N. **longitude:** 38 deg. 08 min. E. **elevation:** 2510m. **remarks:** Plants herbaceous, 35cm tall. Annual rainfall 1200mm. Soil pH 6.0. Seeds collected from several plants. Annual. Wild. Seed.
- PI 517717 **donor id:** ILCA 7661. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517718 **donor id:** ILCA 7667. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517719 **donor id:** ILCA 7671. **origin:** Ethiopia. **collected:** January 17, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **collector id:** SM-5-268-A. **locality:** Clay, Debay Tilatgen, Bichena, Gojam. **latitude:** 10 deg. 27 min. N. **longitude:** 37 deg. 33 min. E. **elevation:** 2610m. **remarks:** Plants herbaceous, 20cm tall with good growth. Annual rainfall 1200mm. Soil pH 6.0. Seeds collected from several plants. Annual. Wild. Seed.

PI 517702 to 517764-continued

- PI 517720 donor id: ILCA 7677. origin: Ethiopia. collected: January 18, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay, 242.3km from Addis Ababa towards Debre Markos, 4.8km from jct. of Dejen-Bichena road near small village, 30m from main road, Dejen, Debre Markos, Gojam. latitude: 10 deg. 14 min. N. longitude: 38 deg. 06 min. E. elevation: 2400m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517721 donor id: ILCA 7697. origin: Ethiopia. Annual. Wild. Seed.
- PI 517722 donor id: ILCA 7747. origin: Ethiopia. collected: January 23, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay loam, Gonder Zwia, Gonder, Gonder. latitude: 12 deg. 36 min. N. longitude: 37 deg. 27 min. E. elevation: 2140m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517723 donor id: ILCA 7754. origin: Ethiopia. collected: January 24, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Sand, Gonder Zwia, Gonder, Gonder. latitude: 12 deg. 29 min. N. longitude: 37 deg. 24 min. E. elevation: 2000m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517724 donor id: ILCA 7779. origin: Ethiopia. collected: January 26, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. collector id: SM-5-297-D. locality: Loam, 648km from Addis Ababa towards Weldya via Bahar Dar, 35km where the Wereta-Weldya cross roads start, Farta, Debre Tabor, Gonder. latitude: 11 deg. 52 min. N. longitude: 37 deg. 58 min. E. elevation: 2460m. remarks: Plants herbaceous, small, 15cm tall. Annual rainfall 1500mm. Soil pH 7.0. Seeds collected from several plants. Annual. Wild. Seed.
- PI 517725 donor id: ILCA 7853. origin: Ethiopia. collected: January 29, 1983. collector: S. Mengistu, Y. Hassen, A. Ahmed. collector id: SM-5-315-A. locality: Sandy loam, 431.8km from Addis Ababa towards Weldya via Desse, 3.1km from town of Haikon right side of road, Tehule Dere, Ambasel, Welo. latitude: 11 deg. 20 min. N. longitude: 39 deg. 40 min. E. elevation: 2900m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517726 donor id: ILCA 8084. origin: Ethiopia. Annual. Wild. Seed.

PI 517702 to 517764-continued

- 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, Ginchi 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 517734 donor id: ILCA 8361. origin: Ethiopia. collected: February 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Cheliya, Jibat & Mecha, Shewa. latitude: 08 deg. 58 min. N. longitude: 37 deg. 28 min. E. elevation: 2260m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1300mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517735 donor id: ILCA 8370. origin: Ethiopia. collected: December 03, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Cheliya, Jibat & Mecha, Shewa. latitude: 09 deg. 02 min. N. longitude: 37 deg. 20 min. E. elevation: 2210m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1300mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517736 donor id: ILCA 8450. origin: Ethiopia. collected: December 07, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loam, Kersa, Jima, Kefa. latitude: 07 deg. 45 min. N. longitude: 37 deg. 10 min. E. elevation: 1750m. remarks: Plants herbaceous, 25cm tall. Annual rainfall 1500mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517737 donor id: ILCA 8458. origin: Ethiopia. Annual. Wild. Seed.
- PI 517738 donor id: ILCA 8461. origin: Ethiopia. collected: December 06, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loam, Sekoru, Jima, Kefa. latitude: 08 deg. 05 min. N. longitude: 37 deg. 27 min. E. elevation: 1950m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517739 donor id: ILCA 8465. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Goro, Chebo & Gurage, Shewa. latitude: 08 deg. 17 min. N. longitude: 37 deg. 47 min. E. elevation: 1880m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517740 donor id: ILCA 8471. origin: Ethiopia. Annual. Wild. Seed.



PI 517702 to 517764-continued

- PI 517741 donor id: ILCA 8477. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Loam, Weliso, Chebo & Gurage, Shewa. latitude: 08 deg. 34 min. N. longitude: 38 deg. 00 min. E. elevation: 2080m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm Soil pH 6.0. Annual. Wild. Seed.
- PI 517742 donor id: ILCA 8482. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Becha, Menagesha, Shewa. latitude: 08 deg. 39 min. N. longitude: 38 deg. 07 min. E. elevation: 2300m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517743 donor id: ILCA 8483. origin: Ethiopia. Annual. Wild. Seed.
- PI 517744 donor id: ILCA 8485. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Becho, Chebo & Gurage, Shewa. latitude: 08 deg. 43 min. N. longitude: 38 deg. 16 min. E. elevation: 2120m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517745 donor id: ILCA 8488. origin: Ethiopia. collected: December 08, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Becho, Chebo & Gurage, Shewa. latitude: 08 deg. 47 min. N. longitude: 38 deg. 20 min. E. elevation: 2080m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1000mm. Soil pH 4.0. Annual. Wild. Seed.
- PI 517746 donor id: ILCA 8491. origin: Ethiopia. Annual. Wild. Seed.
- PI 517747 donor id: ILCA 8520. origin: Ethiopia. collected: November 05, 1982. collector: J. Kahurananga, A. Ahmed. locality: Clay, Aletkam 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, 15cm tall. Annual rainfall 1200mm. Soil pH 5.8. Annual. Wild. Seed.
- PI 517748 donor id: ILCA 9058. origin: Ethiopia. collector: J. Kahurananga & A. Ahmed. locality: Clay, Alektam Atro, 12km N of Dejen on road to Mota, Gojjam, Gojam. latitude: 10 deg. 30 min. N. longitude: 38 deg. 10 min. E. elevation: 2420m. remarks: Plants 20cm tall. Annual rainfall 1000mm. Soil pH 5.8. Annual. Wild. Seed.

PI 517702 to 517764-continued

- PI 517749 donor id: ILCA 9700. origin: Ethiopia. Annual. Wild. Seed.
- PI 517750 donor id: ILCA 9704. origin: Ethiopia. collected: November 03, 1983. collector: S. Mengistu. collector id: SM-6-09-B. locality: Clay, 237km from Addis Ababa towards Debre Markos, 9km next to Dejen, Dejen, Debre Markos, Gojam. latitude: 10 deg. 13 min. N. longitude: 38 deg. 08 min. E. elevation: 2500m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1100mm. Annual. Wild. Seed.
- PI 517751 donor id: ILCA 9712. origin: Ethiopia. Annual. Wild. Seed.
- PI 517752 donor id: ILCA 9720. origin: Ethiopia. collected: November 04, 1983. collector: S. Mengistu. locality: Sand, Merto Abiye farmers association, 106.8km from Addis Ababa towards Debre Markos, 7.8km before Fiche, Girar Jarso, Selale, Shewa. latitude: 09 deg. 45 min. N. longitude: 38 deg. 47 min. E. elevation: 2880m. remarks: Plants herbaceous, 15cm tall. Growth very dry. Annual rainfall 1200mm. Soil pH 7.5. Annual. Wild. Seed.
- PI 517753 donor id: ILCA 9956. origin: Ethiopia. collected: November 15, 1983. collector: S. Mengistu. collector id: SM-7-01-A. locality: Clay loam, 56.7km from Addis Ababa towards Jima, 2km next to Teji, Becho, Chebo & Gurage, Shewa. latitude: 08 deg. 49 min. N. longitude: 38 deg. 22 min. E. elevation: 2120m. remarks: Plants herbaceous, 40cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517754 donor id: ILCA 9959. origin: Ethiopia. collected: November 15, 1983. collector: S. Mengistu. collector id: SM-7-02-B. locality: Clay, 76.4km from Addis Ababa, S towards Jima, 16.4km next to town of Asgore, Becho, Chebo & Gurage, Shewa. latitude: 08 deg. 41 min. N. longitude: 38 deg. 14 min. E. elevation: 2200m. remarks: Plants herbaceous, 21cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517755 donor id: ILCA 9961. origin: Ethiopia. Annual. Wild. Seed.

PI 517702 to 517764-continued

- PI 517756 donor id: ILCA 9966. origin: Ethiopia. collected: November 16, 1983. collector: S. Mengistu. collector id: SM-7-05-B. locality: Clay loam, 119.4km From Addis Ababa towards Jima, 6km to Weliso, Gugura area, Welsio, Chebo & Gurage, Shewa. latitude: 08 deg. 30 min. N. longitude: 37 deg. 57 min. E. elevation: 2000m. remarks: Plants herbaceous, 27cm tall. Annual rainfall 1200mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517757 donor id: ILCA 9970. origin: Ethiopia. Annual. Wild. Seed.
- PI 517758 donor id: ILCA 9991. origin: Ethiopia. collected: November 17, 1983. collector: S. Mengistu. collector id: SM-7-16-B. locality: Clay, sorghum and teff field, 268.4km from Addis Ababa towards Jima, 8km next to Deneba, Beliyio area, Tiro Afeta, Jima, Kefa. latitude: 07 deg. 47 min. N. longitude: 37 deg. 19 min. E. elevation: 1750m. remarks: Plants herbaceous, 85cm tall. Annual rainfall 1500mm. Soil pH 7.5. Annual. Wild. Seed.
- PI 517759 donor id: ILCA 10107. origin: Ethiopia. collected: November 25, 1983. collector: S. Mengistu. collector id: SM-7-57-D. locality: Sandy loam, crop land on right side of road, 268.4km from Addis Ababa towards Fincha dam, 17.5km before Fincha, Abay Chomen, Horo Gudru, Welega. latitude: 09 deg. 27 min. N. longitude: 37 deg. 25 min. E. elevation: 2300m. remarks: Plants herbaceous, 35cm tall. Annual rainfall 1500mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517760 donor id: ILCA 10111. origin: Ethiopia. collected: November 25, 1983. collector: SM-7-58-D. collector id: S. Mengistu. locality: Loam, 251.5km from Addis Ababa towards Fincha dam 33.5km before Fincha, Abay Chomen, Horo Gudru, Welega. latitude: 09 deg. 20 min. N. longitude: 37 deg. 19 min. E. elevation: 2310m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1500mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517761 donor id: ILCA 10125. origin: Ethiopia. collected: November 25, 1983. collector: S. Mengistu. collector id: SM-7-62-B. locality: Clay loam, 178.2km from Addis Ababa towards Nekemte, Cheliya, Jibat & Mecha, Shewa. latitude: 08 deg. 58 min. N. longitude: 37 deg. 33 min. E. elevation: 2320m. remarks: Plants herbaceous, 50cm tall. Annual rainfall 1200mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517702 to 517764-continued

- PI 517762 **donor id:** ILCA 10130. **origin:** Ethiopia. **collected:** November 26, 1983. **collector:** S. Mengistu. **collector id:** SM-7-63-C. **locality:** Clay, 120.2km from Addis Ababa towards Ambo, 5km before Ambo, Aware Michael locality, Ambo Akababi, Jibat & Mecha, Shewa. **latitude:** 08 deg. 59 min. N. **longitude:** 37 deg. 48 min. E. **elevation:** 2220m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1200mm. Soil 6.0. Annual. Wild. Seed.
- PI 517763 **donor id:** ILCA 10134. **origin:** Ethiopia. **collected:** November 26, 1983. **collector:** S. Mengistu. **collector id:** SM-7-66-A. **locality:** Loam, 80.4km from Addis Ababa towards Ambo, 8.4km before Ghinchi, Beredo Legebatu Kebele, Dendi, Jibat & Mecha, Shewa. **latitude:** 09 deg. 02 min. N. **longitude:** 38 deg. 11 min. E. **elevation:** 2220m. **remarks:** Plants herbaceous, 20-30cm tall. Annual rainfall 1200mm. Soil 7.0. Annual. Wild. Seed.
- PI 517764 **donor id:** ILCA 10139. **origin:** Ethiopia. **collected:** November 26, 1983. **collector:** S. Mengistu. **collector id:** SM-7-67-C. **locality:** Clay loam, 72.7km from Addis Ababa towards Ambo, 15.8km next to Addis Alem on left side of road, Addis Alem, Menagesha, Shewa. **latitude:** 09 deg. 02 min. N. **longitude:** 38 deg. 18 min. E. **elevation:** 2240m. **remarks:** Plants herbaceous, 50cm tall. Remarkable spreading and rooting habit. Root measured greater than 1 m. Annual rainfall 1500mm. Soil pH 7.0. Annual. Wild. Seed.

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 517765 **donor id:** ILCA 5786. **origin:** Ethiopia. **collector:** S. Wachefo. **other id:** 5706. **source:** Orig. ILCA no. **locality:** Clay. **latitude:** 09 deg. 03 min. N. **longitude:** 38 deg. 30 min. E. **elevation:** 2400m. **remarks:** Plants herbaceous. Annual rainfall 1100mm. Annual. Wild. Seed.
- PI 517766 **donor id:** ILCA 5787. **origin:** Ethiopia. **collected:** October 29, 1981. **collector:** J. Kahurananga, A. Ahmed, S. Wachefo. **other id:** 5710. **source:** Orig. ILCA no. **locality:** Clay, 19km E of Addis Ababa on road to Debre Berhan, Shewa. **latitude:** 09 deg. 04 min. N. **longitude:** 38 deg. 53 min. E. **elevation:** 2500m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Soil 5.6. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517767 donor id: ILCA 5814. origin: Ethiopia. Annual. Wild. Seed.
- PI 517768 donor id: ILCA 6209. origin: Ethiopia. collected: May 14, 1981. collector: J. Kahurananga. other id: 5700. source: Orig. ILCA no. locality: Clay, ILCA Research Station, Debre Berhan, Shewa. latitude: 09 deg. 40 min. N. longitude: 39 deg. 31 min. E. elevation: 2780m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1000mm. Soil pH 4.9. Annual. Wild. Seed.
- PI 517769 donor id: ILCA 6220. origin: Ethiopia. collected: October 28, 1981. collector: J. Kahurananga, S. Wachefo. other id: 5708. source: Orig. ILCA no. locality: Clay, 78km from Addis Ababa on Asmara Road near large village, Shewa. latitude: 09 deg. 22 min. N. longitude: 39 deg. 22 min. E. elevation: 2900m. remarks: Plants 25cm tall. Annual rainfall 1100mm. Soil pH 5.6. Annual. Wild. Seed.
- PI 517770 donor id: ILCA 6226. origin: Ethiopia. collected: October 07, 1981. collector: J. Kahurananga, S. Wachefo. other id: 5693. source: Orig. ILCA no. locality: Clay soil, seasonally water-logged area. latitude: 09 deg. 02 min. N. longitude: 38 deg. 45 min. E. elevation: 2380m. remarks: Plants herbaceous, 25cm tall. Annual rainfall 1100mm. Soil pH 4.7. Annual. Wild. Seed.
- PI 517771 donor id: ILCA 6227. origin: Ethiopia. collected: September 1980. collector: H. Keno. other id: 5703. source: Orig. ILCA no. locality: Clay, Institute of Agricultural Research Station, Holetta. latitude: 09 deg. 03 min. N. longitude: 38 deg. 30 min. E. elevation: 2400m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1300mm. Soil pH 5.6. Annual. Wild. Seed.
- PI 517772 donor id: ILCA 6249. origin: Ethiopia. collector: J. Kahurananga. other id: 5699. source: Orig. ILCA no. locality: Clay, Debre Berhan, ILCA Research Station, bottom land area, Shewa. latitude: 09 deg. 40 min. N. longitude: 39 deg. 33 min. E. elevation: 2780m. remarks: Plants 30cm tall. Annual rainfall 1000mm. Soil pH 5.2. Annual. Wild. Seed.
- PI 517773 donor id: ILCA 6250. origin: Ethiopia. Annual. Wild. Seed.
- PI 517774 donor id: ILCA 6263. origin: Ethiopia. Annual. Wild. Seed.

PI 517765 to 517896-continued

- 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. N. **longitude:** 38 deg. 45 min. E. **elevation:** 2380m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1100mm. Soil pH 5.0. Annual. Wild. Seed.
- 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. N. **longitude:** 39 deg. 45 min. E. **elevation:** 2380m. **remarks:** Plants 40cm tall. Annual rainfall 1100mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517777 **donor id:** ILCA 6305. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517778 **donor id:** ILCA 6491. **origin:** Ethiopia. **collected:** November 03, 1981. **collector:** J. Kahurananga, S. Wachafo. **other id:** 5744. **source:** Orig. ILCA no. **locality:** Clay, ILCA HQ, Shola, forage plots, Shewa. **latitude:** 09 deg. 02 min. N. **longitude:** 38 deg. 45 min. E. **elevation:** 2380m. **remarks:** Plants herbaceous, 25cm tall. Annual rainfall 1100mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517779 **donor id:** ILCA 6801. **origin:** Ethiopia. Annual. Wild. Seed.
- 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. N. **longitude:** 38 deg. 45 min. E. **elevation:** 2380m. **remarks:** Plants herbaceous, 45cm tall. Annual rainfall 1100mm. Soil pH 5.2. Annual. Wild. Seed.
- PI 517781 **donor id:** ILCA 7628. **origin:** Ethiopia. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517782 **donor id:** ILCA 7713. **origin:** Ethiopia. **collected:** January 20, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **locality:** Clay loam, edge of small stream that divides the town of Bure, 350.6km from Addis Ababa towards Bahir Dar, Shikudad, Kola Deja Damot, Gojam. **latitude:** 10 deg. 43 min. N. **longitude:** 37 deg. 04 min. E. **elevation:** 2480m. **remarks:** Plants herbaceous, 20cm tall. Vigor poor. Annual rainfall 1200mm. Soil pH 7.0. Seed collected from several plants. Annual. Wild. Seed.
- PI 517783 **donor id:** ILCA 7719. **origin:** Ethiopia. **collected:** January 21, 1983. **collector:** S. Mengistu, Y. Hassen, A. Ahmed. **collector id:** SM-5-278-B. **locality:** Clay loam, 426.2km from Addis Ababa towards Metekel, 4.5km from Injibara towards Metekel, Banja, Agew Midir, Gojam. **latitude:** 10 deg. 56 min. N. **longitude:** 36 deg. 56 min. E. **elevation:** 2510m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 2000mm. Soil pH 5.0. Seeds collected from several plants. Annual. Wild. Seed.
- PI 517784 **donor id:** ILCA 7724. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517785 **donor id:** ILCA 7727. **origin:** Ethiopia. **collected:** January 21, 1983. **collector:** S. Mengistu, Y. Hassen. **collector id:** SM-5-280-B. **locality:** Loam, Ministry of Agriculture Forestry Nursery Section, 446.1km from Addis Ababa towards Metekel, 24.4km from Injibara heading towards Metekel, Banja, Agew Midir, Gojam. **latitude:** 10 deg. 58 min. N. **longitude:** 36 deg. 44 min. E. **elevation:** 2400m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 2000mm. Soil pH 5.5. Seeds collected from several plants. Annual. Wild. Seed.
- PI 517786 **donor id:** ILCA 7731. **origin:** Ethiopia. **collected:** January 20, 1983. **collector:** S. Mengistu, Y. Hassen. **collector id:** SM-5-281-C. **locality:** Clay, 451.4km from Addis Ababa towards Dangla, entrance to Injibara town, Banja, Agew Midir, Gojam. **latitude:** 10 deg. 59 min. N. **longitude:** 36 deg. 55 min. E. **elevation:** 2580m. **remarks:** Plants herbaceous, 50cm tall. Annual rainfall 2000mm. Soil pH 5.0. Seeds collected from several plants. Annual. Wild. Seed.
- PI 517787 **donor id:** ILCA 7740. **origin:** Ethiopia. Annual. Wild. Seed.

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. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1100mm. Soil pH 5.5. Annual. Wild. Seed.
- 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. remarks: Plants herbaceous, small, 15cm tall. Annual rainfall 700mm. Soil pH 4.5. Annual. Wild. Seed.
- 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. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- 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. remarks: Plants 30-40cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- 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. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 5.0. Annual. Wild. Seed.
- 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. remarks: Plants herbaceous, 20-30cm tall. Annual rainfall 1200mm. Soil pH 7.5. Annual. Wild. Seed.



PI 517765 to 517896-continued

- PI 517795 donor id: ILCA 8009. origin: Ethiopia. collected: November 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Angolela & Tera, Tegulet & Bulga, Shewa. latitude: 09 deg. 30 min. N. longitude: 39 deg. 26 min. E. elevation: 2750m. remarks: Plants herbaceous, 10-15cm tall. Annual rainfall 1100mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517796 donor id: ILCA 8015. origin: Ethiopia. Annual. Wild. Seed.
- PI 517797 donor id: ILCA 8020. origin: Ethiopia. collected: November 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sand, Ankober, Tegulet & Bulga, Shewa. latitude: 09 deg. 34 min. N. longitude: 39 deg. 45 min. E. elevation: 2680m. remarks: Plants herbaceous, 12cm tall. Annual rainfall 1800mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517798 donor id: ILCA 8024. origin: Ethiopia. Annual. Wild. Seed.
- PI 517799 donor id: ILCA 8028. origin: Ethiopia. collected: November 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sandy loam, Ankober, Tegulet & Bulga, Shewa. latitude: 09 deg. 39 min. N. longitude: 39 deg. 44 min. E. elevation: 3160m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1500mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517800 donor id: ILCA 8029. 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, 50cm tall. Annual rainfall 1100mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517801 donor id: ILCA 8034. origin: Ethiopia. Annual. Wild. Seed.
- PI 517802 donor id: ILCA 8035. origin: Ethiopia. collected: November 02, 1982. collector: L. Akundabweni, S. Mengistu. locality: Sandy loam, Baso & Werena, Tegulet & Bulga, Shewa. latitude: 09 deg. 41 min. N. longitude: 39 deg. 33 min. E. elevation: 2750m. remarks: Plants herbaceous, 5-8cm tall. Annual rainfall 1100mm. Soil pH 5.0. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517803 **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 7.0. Annual. Wild. Seed.
- 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 5.0. Annual. Wild. Seed.
- 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 517765 to 517896-continued

- PI 517811 **donor id:** ILCA 8072. **origin:** Ethiopia. **collected:** November 07, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 57 min. N. **longitude:** 39 deg. 00 min. E. **elevation:** 2580m. **remarks:** Plants herbaceous, 10-20cm. Annual rainfall 900mm. Annual. Wild. Seed.
- PI 517812 **donor id:** ILCA 8073. **origin:** Ethiopia. **collected:** November 07, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 54 min. N. **longitude:** 09 deg. 09 min. E. **elevation:** 2580m. **remarks:** Plants herbaceous, 10cm tall. Annual rainfall 900mm. Annual. Wild. Seed.
- PI 517813 **donor id:** ILCA 8106. **origin:** Ethiopia. **collected:** November 12, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Tiyo, Chilalo, Arsi. **latitude:** 07 deg. 57 min. N. **longitude:** 39 deg. 08 min. E. **elevation:** 2170m. **remarks:** Plants herbaceous, 15-20cm. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517814 **donor id:** ILCA 8110. **origin:** Ethiopia. **collected:** November 12, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Loam, Hitosa, Chillo, Arsi. **latitude:** 08 deg. 03 min. N. **longitude:** 39 deg. 12 min. E. **elevation:** 2180m. **remarks:** Plants herbaceous, 20-30cm tall. Annual rainfall 900mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517815 **donor id:** ILCA 8121. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517816 **donor id:** ILCA 8124. **origin:** Ethiopia. **collected:** November 12, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay, Tiyo, Chilalo, Arsi. **latitude:** 07 deg. 45 min. N. **longitude:** 39 deg. 09 min. E. **elevation:** 2430m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 900mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517817 **donor id:** ILCA 8126. **origin:** Ethiopia. **collected:** November 13, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Sandy loam, Tiyo, Chilalo, Arsi. **latitude:** 07 deg. 48 min. N. **longitude:** 39 deg. 09 min. E. **elevation:** 2510m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517818 donor id: ILCA 8139. origin: Ethiopia. collected: November 13, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Limu & Bilbilo, Chilalo, Arsi. latitude: 07 deg. 36 min. N. longitude: 39 deg. 13 min. E. elevation: 2380m. remarks: Plants herbaceous, 5-10cm tall. Annual rainfall 1000mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517819 donor id: ILCA 8142. origin: Ethiopia. Annual. Wild. Seed.
- PI 517820 donor id: ILCA 8144. origin: Ethiopia. collected: November 13, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Limu & Bilbilo, Chilalo, Arsi. latitude: 07 deg. 28 min. N. longitude: 39 deg. 15 min. E. elevation: 2760m. remarks: Plants herbaceous, 15-20cm tall. Annual rainfall 1200mm. Soil 7.0. Annual. Wild. Seed.
- PI 517821 donor id: ILCA 8146. origin: Ethiopia. collected: November 14, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Limu & Bilbilo, Chilalo, Arsi. latitude: 07 deg. 23 min. N. longitude: 39 deg. 16 min. E. elevation: 2850m. remarks: Plants herbaceous, 15-20cm. Annual rainfall 950mm. Soil pH 4.0. Annual. Wild. Seed.
- PI 517822 donor id: ILCA 8157. origin: Ethiopia. Annual. Wild. Seed.
- PI 517823 donor id: ILCA 8162. origin: Ethiopia. Annual. Wild. Seed.
- PI 517824 donor id: ILCA 8170. origin: Ethiopia. collected: November 15, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay, Adaba, Genale, Bale. latitude: 07 deg. 00 min. N. longitude: 39 deg. 24 min. E. elevation: 2330m. remarks: Plants herbaceous, 35cm tall. Annual rainfall 900mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517825 donor id: ILCA 8172. origin: Ethiopia. collected: November 15, 1982. collector: L. Akundabweni, S. Mengistu. locality: Clay loam, Adaba, Genale, Bale. latitude: 07 deg. 02 min. N. longitude: 39 deg. 29 min. E. elevation: 2430m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 950mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517826 donor id: ILCA 8178. origin: Ethiopia. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517827 **donor id:** ILCA 8193. **origin:** Ethiopia. **collected:** November 16, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Silty loam, Sinana, Mendayu, Bale. **latitude:** 07 deg. 07 min. N. **longitude:** 39 deg. 52 min. E. **elevation:** 2630m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517828 **donor id:** ILCA 8198. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517829 **donor id:** ILCA 8204. **origin:** Ethiopia. **collected:** November 16, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Dinsho, Mendayu, Bale. **latitude:** 07 deg. 07 min. N. **longitude:** 39 deg. 44 min. E. **elevation:** 2950m. **remarks:** Plants herbaceous, 15-20cm tall. Annual rainfall 1000mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517830 **donor id:** ILCA 8220. **origin:** Ethiopia. **collected:** November 16, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 39 min. N. **longitude:** 39 deg. 18 min. E. **elevation:** 2700m. **remarks:** Plants herbaceous, 30cm tall. Annual rainfall 1000mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517831 **donor id:** ILCA 8222. **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:** 2640m. **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 1000mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517832 **donor id:** ILCA 8225. **origin:** Ethiopia. **collected:** November 06, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay, Moret & Jiru, Tegulet & Bulga, Shewa. **latitude:** 09 deg. 45 min. N. **longitude:** 39 deg. 11 min. E. **elevation:** 2620m. **remarks:** Plants herbaceous, 10-15cm tall. Annual rainfall 950mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517833 **donor id:** ILCA 8228. **origin:** Ethiopia. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517834 **donor id:** ILCA 8234. **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, 5cm tall. Annual rainfall 1100mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517835 **donor id:** ILCA 8240. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517836 **donor id:** ILCA 8241. **origin:** Ethiopia. **collected:** November 02, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Bereh, Menagesha, Shewa. **latitude:** 09 deg. 01 min. N. **longitude:** 38 deg. 49 min. E. **elevation:** 2430m. **remarks:** Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517837 **donor id:** ILCA 8244. **origin:** Ethiopia. **collected:** November 02, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Bereh, Menagesha, Shewa. **latitude:** 09 deg. 02 min. N. **longitude:** 38 deg. 51 min. E. **elevation:** 2420m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517838 **donor id:** ILCA 8246. **origin:** Ethiopia. **collected:** November 02, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Legadadi, 20km from ILCA, Menagesha, Shewa. **latitude:** 09 deg. 05 min. N. **longitude:** 38 deg. 10 min. E. **elevation:** 2430m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517839 **donor id:** ILCA 8249. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517840 **donor id:** ILCA 8255. **origin:** Ethiopia. **collected:** November 17, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Silt, Shashemene, Haycoch & Butajira, Shewa. **latitude:** 07 deg. 02 min. N. **longitude:** 38 deg. 58 min. E. **elevation:** 2450m. **remarks:** Plants herbaceous, 20-30cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517841 **donor id:** ILCA 8258. **origin:** Ethiopia. **collected:** November 17, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Sandy loam, Shashemene, Haycoch & Butajira, Shewa. **latitude:** 07 deg. 01 min. N. **longitude:** 38 deg. 52 min. E. **elevation:** 2480m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 1000mm. Soil pH 4.0. Annual. Wild. Seed.
- PI 517842 **donor id:** ILCA 8261. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517843 **donor id:** ILCA 8285. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517844 **donor id:** ILCA 8318. **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, 30cm tall. Annual rainfall 1000mm. Soil pH 8.0. Annual. Wild. Seed.
- PI 517845 **donor id:** ILCA 8331. **origin:** Ethiopia. **collected:** December 01, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay, Dendi, Jibat & Mecha, Shewa. **latitude:** 09 deg. 01 min. N. **longitude:** 38 deg. 07 min. E. **elevation:** 2270m. **remarks:** Plants herbaceous, 45-50cm tall. Annual rainfall 1200mm. Soil pH 7.0. Annual. Wild. Seed.
- PI 517846 **donor id:** ILCA 8336. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517847 **donor id:** ILCA 8359. **origin:** Ethiopia. Annual. Wild. Seed.
- PI 517848 **donor id:** ILCA 8363. **origin:** Ethiopia. **collected:** December 02, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Cheliya, Jibat & Mecha, Shewa. **latitude:** 08 deg. 58 min. N. **longitude:** 37 deg. 28 min. E. **elevation:** 2260m. **remarks:** Plants herbaceous, 15-20cm tall. Annual rainfall 1300mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517849 **donor id:** ILCA 8410. **origin:** Ethiopia. **collected:** December 03, 1982. **collector:** L. Akundabweni, S. Mengistu. **locality:** Clay loam, Jima Arjo, Arjo, Welega. **latitude:** 08 deg. 46 min. N. **longitude:** 36 deg. 30 min. E. **elevation:** 2500m. **remarks:** Plants herbaceous, 60cm tall. Annual rainfall 2000mm. Soil pH 4.5. Annual. Wild. Seed.

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. Annual. Wild. Seed.
- PI 517853 donor id: ILCA 8509. origin: Ethiopia. collector: 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 517854 donor id: ILCA 8510. 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 517855 donor id: ILCA 8514. 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 517856 donor id: ILCA 8515. origin: Ethiopia. Annual. Wild. Seed.
- PI 517857 donor id: ILCA 8519. 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 517765 to 517896-continued

- PI 517858 donor id: ILCA 8528. origin: Ethiopia. collector: J. Kahurananga & A. Ahmed. locality: Clay, 22km from Gonder to Bahar Dar, 20km E of road, Gonder. latitude: 12 deg. 29 min. N. longitude: 37 deg. 27 min. E. elevation: 1950m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1000mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517859 donor id: ILCA 8531. origin: Ethiopia. Annual. Wild. Seed.
- PI 517860 donor id: ILCA 8541. origin: Ethiopia. collector: J. Kahurananga. latitude: 10 deg. 15 min. N. longitude: 37 deg. 53 min. E. elevation: 2540m. remarks: Annual rainfall 1200mm. Soil pH 5.4. Annual. Wild. Seed.
- PI 517861 donor id: ILCA 8575. origin: Ethiopia. Annual. Wild. Seed.
- PI 517862 donor id: ILCA 8591. origin: Ethiopia. collected: December 17, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Loam, Tiyo, Chilalo, Arsi. latitude: 07 deg. 52 min. N. longitude: 39 deg. 8 min. E. elevation: 2520m. remarks: Plants herbaceous, 15-20cm tall. Annual rainfall 1200mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517863 donor id: ILCA 8593. origin: Ethiopia. Annual. Wild. Seed.
- PI 517864 donor id: ILCA 8604. origin: Ethiopia. collected: December 18, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay loam, Limu & Bilbilo, Chilalo, Arsi. latitude: 07 deg. 25 min. N. longitude: 39 deg. 14 min. E. elevation: 2870m. remarks: Plants herbaceous, 15-20cm tall. Annual rainfall 1000mm. Soil 5.0. Annual. Wild. Seed.
- PI 517865 donor id: ILCA 8605. origin: Ethiopia. collected: December 18, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay loam, Limu & Bilbilo, Chilalo, Arsi. latitude: 07 deg. 22 min. N. longitude: 39 deg. 14 min. E. elevation: 2970m. remarks: Plants herbaceous, 10-15cm tall. Annual rainfall 700mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517866 donor id: ILCA 8612. origin: Ethiopia. collected: December 19, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Peaty loam, Dinshu, Goba. latitude: 07 deg. 03 min. N. longitude: 39 deg. 32 min. E. elevation: 3520m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 950mm. Soil pH 7.0. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517867 donor id: ILCA 8615. origin: Ethiopia. collected: December 19, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Peaty loam, Dinshu, Goba, Bale. latitude: 07 deg. 02 min. N. longitude: 39 deg. 04 min. E. elevation: 3250m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 950mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517868 donor id: ILCA 8623. origin: Ethiopia. Annual. Wild. Seed.
- PI 517869 donor id: ILCA 8625. origin: Ethiopia. Annual. Wild. Seed.
- PI 517870 donor id: ILCA 8629. origin: Ethiopia. collected: December 20, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Loam, Dinshu, Goba, Bale. latitude: 07 deg. 06 min. N. longitude: 39 deg. 47 min. E. elevation: 2660m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 950mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517871 donor id: ILCA 8635. origin: Ethiopia. collected: December 20, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Loam, Kofele, Chilalo, Arsi. latitude: 07 deg. 08 min. N. longitude: 38 deg. 50 min. E. elevation: 2690m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 1200mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517872 donor id: ILCA 8692. origin: Ethiopia. collected: December 24, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Clay loam, Chenchu, Gamo, Gamo Gofa. latitude: 06 deg. 19 min. N. longitude: 37 deg. 33 min. E. elevation: 2750m. remarks: Plants herbaceous, 10-15cm tall. Annual rainfall 1500mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517873 donor id: ILCA 8758. origin: Ethiopia. Annual. Wild. Seed.
- PI 517874 donor id: ILCA 8764. origin: Ethiopia. Annual. Wild. Seed.
- PI 517875 donor id: ILCA 9057. origin: Ethiopia. collector: A. Ahmed. locality: Clay, Shewa. latitude: 09 deg. 03 min. N. longitude: 38 deg. 30 min. E. elevation: 2450m. remarks: Plants herbaceous, 45cm tall. Annual rainfall 1200mm. Soil pH 5.6. Annual. Wild. Seed.
- PI 517876 donor id: ILCA 9370. origin: Ethiopia. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517877 donor id: ILCA 9681. origin: Ethiopia. collector: S. Mengistu. locality: Clay, 15km from Debre Markos towards Bahar Dar, Sentara Valley, Gozamin, Debre Marcos, Gojam. latitude: 10 deg. 22 min. N. longitude: 37 deg. 36 min. E. elevation: 2300m. remarks: Plants herbaceous, 50cm tall. Growth very dense. Annual rainfall 1300mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517878 donor id: ILCA 9688. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, 15km before Debre Markos, Gozamin, Debre Marcos, Gojam. latitude: 10 deg. 16 min. N. longitude: 37 deg. 49 min. E. elevation: 2350m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517879 donor id: ILCA 9692. origin: Ethiopia. collector: S. Mengistu. locality: Clay loam, Gudalema Mariam, 7km next to Lumame, 269km from Addis Ababa, Gojam. latitude: 10 deg. 15 min. N. longitude: 37 deg. 53 min. E. elevation: 2450m. remarks: Plants herbaceous, 55cm tall. Annual rainfall 1200mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517880 donor id: ILCA 9697. origin: Ethiopia. Annual. Wild. Seed.
- PI 517881 donor id: ILCA 9715. origin: Ethiopia. collector: S. Mengistu. locality: Loam, 7km before Gerve Guracha, just before the missionaries school at foot of hill on right side of road, Kuyu, Selale, Shewa. latitude: 09 deg. 47 min. N. longitude: 38 deg. 28 min. E. elevation: 3100m. remarks: Plants herbaceous, 35cm tall. Annual rainfall 1200mm. Soil pH 6.0. Annual. Wild. Seed.
- PI 517882 donor id: ILCA 9718. origin: Ethiopia. Annual. Wild. Seed.
- PI 517883 donor id: ILCA 9771. origin: Ethiopia. collector: S. Mengistu. locality: Sand, 34km from Addis Ababa towards Negele Borana, 6.3km next to Aleta Wondo, Sidamo. latitude: 06 deg. 35 min. N. longitude: 38 deg. 28 min. E. elevation: 2380m. remarks: Plants herbaceous, 45cm tall. Annual rainfall 1500mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517884 donor id: ILCA 10073. origin: Ethiopia. collector: S. Mengistu. locality: Sand, 6.2km before Arjo reforested small hill on right side of road, Jimma Arjo, Arjo, Welega. latitude: 08 deg. 46 min. N. longitude: 36 deg. 28 min. E. elevation: 2490m. remarks: Plants herbaceous, 20cm tall. Annual rainfall 2000mm. Soil pH 4.5. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517885 donor id: ILCA 10119. origin: Ethiopia. Annual. Wild. Seed.
- PI 517886 donor id: ILCA 10121. origin: Ethiopia. collector: S. Mengistu. locality: Sandy loam, 200km from Addis Ababa towards Fincha Dam, 6.4km from Gedo, Tafese Alenga Kebele, Chelya, Jibat & Mecha, Shewa. latitude: 09 deg. 04 min. N. longitude: 37 deg. 24 min. E. elevation: 1740m. remarks: Plants herbaceous, 50cm tall. Annual rainfall 1500mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517887 donor id: ILCA 10149. origin: Ethiopia. Annual. Wild. Seed.
- PI 517888 donor id: ILCA 10164. origin: Ethiopia. collector: S. Mengistu. locality: Loam, wheat field near small stream, 6.9km next Assela, Tiyo, Chilalo, Arsi. latitude: 07 deg. 53 min. N. longitude: 39 deg. 07 min. E. elevation: 2520m. remarks: Plants herbaceous, 15cm tall. Annual rainfall 1200mm. Soil pH 4.5. Annual. Wild. Seed.
- PI 517889 donor id: ILCA 10181. origin: Ethiopia. locality: Clay, Assela, 10.3km from Bekoji, Chilalo, Arsi. latitude: 07 deg. 27 min. N. longitude: 39 deg. 15 min. E. elevation: 2920m. remarks: Plants herbaceous, 10cm tall. Annual rainfall 1000mm. Soil pH 6.5. Annual. Wild. Seed.
- PI 517890 donor id: ILCA 10182. origin: Ethiopia. collected: December 15, 1983. collector: S. Mengistu. collector id: SM-8-09-A. locality: Clay, near small village, 257.6km from Addis Ababa towards Bale Goba via Asela, 22.6km from Bekojiand, 3km before Serbo, Chilalo, Arsi. latitude: 07 deg. 24 min. N. longitude: 39 deg. 12 min. E. elevation: 2960m. remarks: Plants herbaceous, 30cm tall. Annual rainfall 850mm. Soil pH 5.5. Annual. Wild. Seed.
- PI 517891 donor id: ILCA 10199. origin: Ethiopia. locality: Loam soil, national park on right side of road, 1 km from Dinsho, 402.7km from Addis Ababa towards Bale Goba via Shashemane Dinsho, Mendeyu, Bale. remarks: Plants herbaceous, 30cm tall. Annual rainfall 950mm. Soil pH 5.0. Annual. Wild. Seed.

PI 517765 to 517896-continued

- PI 517892 donor id: ILCA 10201. origin: Ethiopia. collector: S. Mengistu. locality: Loam, 36km before Robe on bottom land on right side of road, Dinsho, Mendoyu, Bale. latitude: 07 deg. 06 min. N. longitude: 39 deg. 43 min. E. elevation: 2940m. remarks: Plants herbaceous, 80cm tall. Annual rainfall 950mm. Soil pH 5.0. Annual. Wild. Seed.
- PI 517893 donor id: ILCA 10205. origin: Ethiopia. Annual. Wild. Seed.
- PI 517894 donor id: ILCA 10223. origin: Ethiopia. collector: S. Mengistu. locality: Loam, Gobi animal breeding station, 11km NW of Kofele, Gobe, Chilalo, Arsi. latitude: 07 deg. 09 min. N. longitude: 38 deg. 51 min. E. elevation: 2740m. remarks: Plants herbaceous, 25cm tall. Annual rainfall 1200mm. Soil pH 4.0. Annual. Wild. Seed.
- PI 517895 donor id: ILCA 10250. origin: Ethiopia. Annual. Wild. Seed.
- PI 517896 donor id: ILCA 10884. origin: Ethiopia. Annual. Wild. 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 517897 donor id: ILCA 7838. origin: Ethiopia. Wild. Seed.
- PI 517898 donor id: ILCA 8580. origin: Ethiopia. Wild. Seed.
- PI 517899 donor id: ILCA 8780. origin: Ethiopia. collected: December 30, 1982. collector: S. Mengistu, Y. Hassen, A. Ahmed. locality: Loam, Sodo, Haycoch & Butajira, Shewa. latitude: 08 deg. 14 min. N. longitude: 38 deg. 29 min. E. elevation: 1950m. remarks: Vine, 45cm. Annual rainfall 950mm. Soil pH 7.0. Wild. Seed.
- PI 517900 donor id: ILCA 9686. origin: Ethiopia. Wild. Seed.
- 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 517902 donor id: ILCA 10525. origin: Ethiopia. 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 517903 **donor id:** ILCA 7708. **origin:** Ethiopia. Wild. Seed.

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 517905 **donor id:** ILCA 6831. **origin:** Ethiopia. **origin**  
**institute:** IARA. Wild. Seed.

PI 517906 **donor id:** ILCA 6832. **origin:** Ethiopia. **origin**  
**institute:** IARA. Wild. Seed.

PI 517907 **donor id:** ILCA 6833. **origin:** Ethiopia. **origin**  
**institute:** IARA. Wild. Seed.

PI 517908 **donor id:** ILCA 6834. **origin:** Ethiopia. **origin**  
**institute:** IARA. Wild. Seed.

PI 517909 **donor id:** ILCA 6835. **origin:** Ethiopia. **origin**  
**institute:** IARA. Wild. Seed.

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 517910 **donor id:** ILCA 6783. **origin:** Ethiopia. **origin**  
**institute:** IARA. Wild. Seed.

PI 517911 **donor id:** ILCA 6787. **origin:** Ethiopia. **origin**  
**institute:** IARA. Wild. Seed.

PI 517912 **donor id:** ILCA 7823. **origin:** Ethiopia. **origin**  
**institute:** IARA. Wild. Seed.

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 517913 **donor id:** ILCA 9754. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sand, 534.4km from Addis Ababa, towards Moyale, 65.7km next to Hagere Mariyam, Yabelo, Arero, Sidamo. **latitude:** 05 deg. 07 min. N. **longitude:** 38 deg. 17 min. E. **elevation:** 1780m. **remarks:** Plants herbaceous, 40cm tall. Annual rainfall 900mm. Soil pH 8.0. Wild. Seed.

PI 517914 **donor id:** ILCA 9789. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sand, 492.9km from Addis Ababa towards Negele Borana, 21.6km next to Kibre Mengist, Wadera, Jemjem, Shewa. **latitude:** 05 deg. 53 min. N. **longitude:** 39 deg. 10 min. E. **elevation:** 1960m. **remarks:** Plants herbaceous, 20cm tall. Annual rainfall 950mm. Soil pH 5.0. Wild. Seed.

PI 517915 **donor id:** ILCA 10319. **origin:** Ethiopia. **collector:** A. Russell Smith, J. Ochang. **locality:** Silty loam. **latitude:** 06 deg. 44 min. B. **longitude:** 37 deg. 48 min. E. **elevation:** 1650m. **remarks:** Annual rainfall 1200mm. Soil pH 8.0. Wild. Seed.

PI 517916 **donor id:** ILCA 10537. **origin:** Ethiopia. Wild. Seed.

PI 517917 **donor id:** ILCA 10541. **origin:** Ethiopia. **collected:** December 25, 1983. **collector:** S. Mengistu. **collector id:** SM-8-54-C. **locality:** Sand, roadside, 580.2km from Addis Ababa towards Negele Borena, 10.9km before Negele Borena, Borana, Sidamo. **latitude:** 05 deg. 26 min. N. **longitude:** 39 deg. 30 min. E. **elevation:** 1530m. **remarks:** Sub-shrub, 20cm tall. Annual rainfall 800mm. Soil pH 7.0. Wild. Seed.

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 **donor id:** ILCA 9679. **origin:** Ethiopia. **collector:** S. Mengistu. **locality:** Sand, roadside, 488.2km from Addis Ababa towards Moyale, 20km next to Hagere Mariam, Agere Mariyam, Arero, Sidamo. **latitude:** 05 deg. 28 min. N. **longitude:** 38 deg. 16 min. E. **elevation:** 1980m. **remarks:** Plants creeping, 5cm tall. Annual rainfall 950mm. Soil pH 7.5. Wild. Seed.

PI 517919 **donor id:** ILCA 9788. **origin:** Ethiopia. Wild. Seed.

PI 517918 to 517921-continued

PI 517920 **donor id:** ILCA 10258. **origin:** Ethiopia. **Wild. Seed.**

PI 517921 **donor id:** ILCA 10259. **origin:** Ethiopia. **collected:** December 20, 1983. **collector:** S. Mengistu. **collector id:** SM-8-37-A. **locality:** Loam, protected reforestation area, 11.2km next to Hagere Mariam on left side of road, Agere Maryam, Arero, Sidamo. **latitude:** 05 deg. 33 min. N. **longitude:** 38 deg. 15 min. E. **elevation:** 2000m. **remarks:** Plants creeping, 5-10cm tall. Annual rainfall 1000mm. Soil pH 5.0. **Wild. Seed.**

PI 517922 to 517926. *Pisum sativum* var. *arvense* (L.) Poiret **FABACEAE**  
Field pea

**Donated by:** Auld, D.L., Dept. of Plant, Soil, and Ent. Sciences, University of Idaho, Moscow, Idaho, United States. Received March 15, 1988.

PI 517922 **donor id:** D29-1-2. **origin:** United States. **pedigree:** Fenn\*3/New Season(afafststtltl)//ID 89-1/ID 36. **local name:** Austrian winter pea. **other id:** GP-69. **source:** Crop Sci. 28(5):0872. **group:** CSR-PEAS. **remarks:** Plants semi-leafless (afila-afaf), semi-dwarf (lele). Winter survival and spring vigor good. Flowers purple. Seed coat grey, speckled. Segregation for yellow and green cotyledons (Ii). Yield good. **disease resistance:** Race 1 of Fusarium wilt (FwFw). Winter Annual. Breeding Material. **Seed.**

PI 517923 **donor id:** D14-5-10. **origin:** United States. **pedigree:** Melrose \*2/New Season (afafststtltl)//ID 89-1/ID 36. **local name:** Austrian winter pea. **other id:** GP-70. **source:** Crop Sci. 28(5):0872. **group:** CSR-PEAS. **remarks:** Plants semi-leafless, semi-dwarf. Winter survival, excellent. Spring vigor good. Flowers purple. Seed coat speckled, mottled, dark brown. Cotyledons green. Yield high. **disease resistance:** Tolerance to Sclerotinia white mold. Segregates for resistance to race 1 of Fusarium wilt. Winter Annual. Breeding Material. **Seed.**

PI 517924 **donor id:** D59-5-6-3Y. **origin:** United States. **pedigree:** Melrose \*2/VR 74-410-2//Glacier. **other id:** GP-71. **source:** Crop Sci. 28(5):0872. **group:** CSR-PEAS. **remarks:** Plants semi-dwarf. Leaves normal (AfAf). Winter survival good. Spring vigor excellent. Flowers white (aa). Seed coat white with unpigmented hilum (plpl). Cotyledons yellow. Seeds bleach and discolor under field conditions. Yield good. **disease resistance:** Race 1 of Fusarium wilt. Tolerant to Sclerotinia white mold. Winter Annual. Breeding Material. **Seed.**



PI 517922 to 517926-continued

PI 517925 **donor id:** D60-2-6-1Y. **origin:** United States. **pedigree:** Melrose \*2/VR 74-410-2//Fenn/ID 89-1. **other id:** GP-72. **source:** Crop Sci. 28(5):0872. **group:** CSR-PEAS. **remarks:** Plants semi-dwarf. Leaves normal (AfAf). Winter survival good. Spring vigor excellent. Flowers white (aa). Seed coat white with unpigmented hilum (plpl). Cotyledons yellow. Yield good. **disease resistance:** Race 1 of Fusarium wilt. Tolerant to Sclerotinia white mold. Winter Annual. Breeding Material. Seed.

PI 517926 **donor id:** D150-4-14. **origin:** United States. **pedigree:** S-35//PI 286430/4/S-35/3/Fenn/WI 7103(New Era)//Melrose. **local name:** Austrian winter pea. **other id:** GP-73. **source:** Crop Sci. 28(5):0872. **group:** CSR-PEAS. **remarks:** Forage and/or green manure type. Plants 1.0m or more in length. Flowers purple (AA). Testa dark purple. Cotyledons yellow. Winter hardiness poor. **disease resistance:** Powdery mildew in greenhouse. Segregates for resistance to race 1 of Fusarium wilt. Winter Annual. Breeding Material. Seed.

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 **donor id:** M-027-RNR. **origin:** United States. **pedigree:** Deltapine 16/3\*T-27 (race punctatum-origin Chiapas, Mexico). **other id:** GP-333. **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 517928 **donor id:** M-028-RNR. **origin:** United States. **pedigree:** Deltapine 16/3\*T-28 (race punctatum-origin Chiapas, Mexico). **other id:** GP-334. **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 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 517927 to 517938-continued

- PI 517934 **donor id:** M-026-RNR. **origin:** United States. **pedigree:** Deltapine 16/2\*T-26 (race punctatum-origin Chiapas, Mexico). **other id:** GP-340. **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 517935 **donor id:** M-070-RNR. **origin:** United States. **pedigree:** Deltapine 16/2\*T-70 (race latifolium-origin Guatemala). **other id:** GP-341. **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 517936 **donor id:** M-188-RNR. **origin:** United States. **pedigree:** Deltapine 16/2\*T-188(race latifolium-origin Guatemala). **other id:** GP-342. **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 517937 **donor id:** M-487-RNR. **origin:** United States. **pedigree:** Deltapine 16/2\*T-487(race punctatum-origin Yucatan, Mexico). **other id:** GP-343. **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 517938 **donor id:** M-495-RNR. **origin:** United States. **pedigree:** Deltapine 16/2\*T-495(race punctatum-origin Unknown). **other id:** GP-344. **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). Annual. Breeding Material. Seed.

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). Annual. Breeding Material. Seed.

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). Annual. Breeding Material. Seed.

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). Annual. Breeding Material. Seed.

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). Annual. Breeding Material. Seed.

PI 517942 to 517944-continued

PI 517944 **donor id:** MHR-16. **origin:** United States. **pedigree:** TIMOK 811/Stoneville 213(ST 213). **other id:** GP-350. **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). Annual. Breeding Material. Seed.

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 517945 **donor id:** MHR-17. **origin:** United States. **pedigree:** Selection from JPM-781-69-3. **other id:** GP-351. **source:** Crop Sci. 28(5):0870. **group:** CSR-COTTON. **remarks:** Potentially useful for developing cultivars with increased tolerance to tobacco budworm (TBW). **insect resistance:** Tolerant to tobacco budworm (TBW). **disease resistance:** Probable to Fusarium wilt. Annual. Breeding Material. Seed.

PI 517946 **donor id:** MHR-18. **origin:** United States. **pedigree:** Selection from JPM-781-69-3. **other id:** GP-352. **source:** Crop Sci. 28(5):0870. **group:** CSR-COTTON. **remarks:** Potentially useful for developing cultivars with increased tolerance to tobacco budworm (TBW). **insect resistance:** Tolerant to tobacco budworm (TBW). **disease resistance:** Probable to Fusarium wilt. Annual. Breeding Material. Seed.

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

**donor id:** Tift N75. **origin:** United States. **cultivar:** MOTT. **pedigree:** Selection from selfed progeny of Merkeron (dwarf/tall). **other id:** GP-55. **group:** CSR-OTHER GRASSES. **other id:** CV-116. **group:** CSR-OTHER GRASSES. **remarks:** Plants heterozygous, not true breeding from seed, 1.6m tall, dwarf growth habit. Short day sensitive, won't flower at Tifton before frost. Cold tolerance equal to Merkeron. Excellent source of dwarfing genes for height control for developing easily managed, leafy, high quality cultivars. Forage quality excellent. Flowers male and female fertile and  $2n=4x=28$ . Perennial. Breeding Material. Seed.

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.

**donor id:** Tift 86. **origin:** United States. **pedigree:** Selection from an adapted, reseeded, early-maturing ecotype from a pasture near Valdosta. **other id:** GP-56. **source:** Crop Sci. 28(5):0871. **group:** CSR-OTHER GRASSES. **remarks:** Plants early maturing, yield high. Flowering early May. Suitable for overseeding on sods of warm-season perennial grasses such as bermuda and bahia. Potentially adapted to annual ryegrass growing areas from Texas to North Carolina. Winter survival excellent. **disease resistance:** Tolerance to crown and stem rusts. Annual. Breeding Material. Seed.

PI 517949 to 517959. *Helianthus annuus* L. ASTERACEAE Sunflower

**Donated by:** Hoes, J.A. & Dedio, W., Agriculture Canada, Research Station, Morden, Manitoba ROG 1J0, Canada. Received March 15, 1988.

PI 517949 **donor id:** CM 601. **origin:** Canada. **pedigree:** S8 selection from CM 400. **other id:** GP-83. **source:** Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:** Plants mid-early maturity, high self compatibility, single-headed, 147cm tall. Achenes medium-sized, black with grey stripes. Days to 80% bloom 64. Seedoil content 48%. **disease resistance:** Rust and Verticillium wilt. Annual. Breeding Material. Seed.

PI 517949 to 517959-continued

- PI 517950 **donor id:** CM 602. **origin:** Canada. **pedigree:** F6  
**selection from** CM 400/CM 338. **other id:** GP-84. **source:**  
Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:**  
Plants mid-early maturity, moderately self-compatible,  
single-headed, 130cm tall. Achenes black, medium-sized.  
Days to 80% bloom 66. Seedoil content 44%. **disease**  
**resistance:** Rust. Segregates for resistance to  
Verticillium wilt. Annual. Breeding Material. Seed.
- PI 517951 **donor id:** CM 603. **origin:** Canada. **pedigree:** F6  
**selection from** CM 565/CM 338. **other id:** GP-85. **source:**  
Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:**  
Plants mature early, good self-compatibility,  
single-headed, 128cm tall. Achenes medium-sized, plump,  
black with grey stripes. Days to 80% bloom 59. Seedoil  
content 43%. **disease resistance:** Rust and Verticillium  
wilt. Annual. Breeding Material. Seed.
- PI 517952 **donor id:** CM 604. **origin:** Canada. **pedigree:** F6  
**selection from** CM 303//CM 565/CM 338. **other id:** GP-86.  
**source:** Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER.  
**remarks:** Plants mature early, good self-compatibility,  
single-headed, 137cm tall. Achenes medium-sized, black  
with faint grey stripes. Days to 80% bloom 66. Seedoil  
content 48%. Susceptible to rust. **disease resistance:**  
Verticillium wilt. Annual. Breeding Material. Seed.
- PI 517953 **donor id:** CM 605. **origin:** Canada. **pedigree:** F6  
**selection from** CM 392//CM 447. **other id:** GP-87. **source:**  
Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:**  
Plants mid-early maturity, good self-compatibility,  
single-headed, 129cm tall. Achenes black with grey  
stripes. Days to 80% bloom 61. Seedoil content 48%.  
**disease resistance:** Rust and Verticillium wilt. Annual.  
Breeding Material. Seed.
- PI 517954 **donor id:** CM 606. **origin:** Canada. **pedigree:** S5  
**selection from** CM 446. **other id:** GP-88. **source:** Crop  
Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:** Plants  
mid-early maturity, good self-compatibility, single-  
headed, 125cm tall. Achenes medium-sized, black with grey  
stripes. Days to 80% bloom 63. Seedoil content 49%.  
**disease resistance:** Rust. Segregates for resistance to  
Verticillium wilt. Annual. Breeding Material. Seed.

PI 517949 to 517959-continued

- PI 517955 **donor id:** CM 607. **origin:** Canada. **pedigree:** Composite of eight F4 plants from 77AB/HA 301. **other id:** GP-89. **source:** Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:** Plants late-maturing, good self-compatibility, single-headed, 130cm tall. Achenes medium-sized, black with faint grey stripes. Days to 80% bloom 64. Seedoil content 49%. Moderately susceptible to rust. **disease resistance:** Segregates for resistance to Verticillium wilt. Annual. Breeding Material. Seed.
- PI 517956 **donor id:** CM 608. **origin:** Canada. **pedigree:** Sister line of CM 587(PL 35). **other id:** GP-90. **source:** Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:** Fertility restorer line. Plants late-maturing, good self-compatibility, single-headed. Achenes black with prominent white stripes and a distinctive, elongated, pointed shape. Days to 80% bloom 69. Seedoil content 43%. Moderately susceptible to rust. **disease resistance:** Verticillium wilt and race 2 of downy mildew. Annual. Breeding Material. Seed.
- PI 517957 **donor id:** CM 609. **origin:** Canada. **pedigree:** F7 selection from RHA 274/2\*CM499. **other id:** GP-91. **source:** Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:** Fertility restorer line. Plants late-maturing, good self-compatibility, recessive branching and multi-headed, 127cm tall. Achenes medium-sized, shiny black with grey stripes. Days to 80% bloom 60. Seedoil content 46%. Moderately susceptible to rust. **disease resistance:** Verticillium wilt and race 2 of downy mildew. Annual. Breeding Material. Seed.
- PI 517958 **donor id:** CM 610. **origin:** Canada. **pedigree:** Single F5 selection from Acc. 1611/3\*CM 469//RHA 274/3\*CM 497. **other id:** GP-92. **source:** Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:** Fertility restorer line. Plants late-maturing, moderate self compatibility, recessive branching and multi-headed, 131cm tall. Achenes black with grey stripes, elongated, narrow shape. Days to 80% bloom 63. Seedoil content 48%. **disease resistance:** Verticillium wilt and race 2 of downy mildew. Moderate to rust. Annual. Breeding Material. Seed.
- PI 517959 **donor id:** CM 611. **origin:** Canada. **pedigree:** Selection from HA 301 (55 line derived from Peredovik 304). **other id:** GP-93. **source:** Crop Sci. 28(5):0875. **group:** CSR-SUNFLOWER. **remarks:** Plants early-maturing, moderate self-compatibility, single-headed, 122cm tall. Achenes black, relatively small. Days to 80% bloom 64. Seedoil content 47%. **disease resistance:** Rust and Verticillium wilt. Annual. Breeding Material. Seed.



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) C1 (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) C1 (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) C1 (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) C1 (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) C1 (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 517960 to 517967-continued

PI 517965 donor id: PA Comp III (GLS) C1 (LD). origin: United States. other id: GP-177. source: Crop Sci. 28(5):0871. group: CSR-MAIZE. remarks: Low disease sub-population of synthetic PA Comp III. 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 517966 donor id: PA Plt Path Composite C1 (HY). origin: United States. other id: GP-178. source: Crop Sci. 28(5):0871. group: CSR-MAIZE. remarks: High yield sub-population of synthetic PA Plt Path Comp. 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 517967 donor id: PA Plt Path Composite C1 (LD). origin: United States. other id: GP-179. source: Crop Sci. 28(5):0871. group: CSR-MAIZE. remarks: Low disease sub-population of synthetic PA plt Path Comp. 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 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 donor id: PA 392. origin: United States. pedigree: Selection from PA Virus resistant early synthetic. other id: PL-103. source: Crop Sci. 28(5):0876. group: CSR-MAIZE. remarks: Plants about 180cm tall, good stalk strength, yield well. Leaves medium-green, spreading. Tassels sem-erect, medium-branched. Kernels light yellow, medium-long, dent. Cobs white with 16 rows. Good in crosses as male or female. Good combining ability. disease resistance: Better than average to northern corn blight. Breeding Material. Seed.

PI 517968 to 517971-continued

- PI 517969 **donor id:** PA 462P. **origin:** United States. **pedigree:** CH157///CH157//I11/PPP. **other id:** PL-104. **source:** Crop Sci. 28(5):0876. **group:** CSR-MAIZE. **remarks:** Plants about 190cm tall, good stalk strength. Leaves medium-green, spreading. Tassels semi-erect, medium-branched. Kernels light yellow, small, round, dent. Cobs white with 12 rows. Best used as male parent. **disease resistance:** Above average to northern leaf blight. **Breeding Material.** Seed.
- PI 517970 **donor id:** PA 463P. **origin:** United States. **pedigree:** CH157/I11A//CH157/PPP///K64/MO4155. **other id:** PL-105. **source:** Crop Sci. 28(5):0876. **group:** CSR-MAIZE. **remarks:** Plants about 140cm tall, good stalk strength, good combining ability especially as the female parent. Kernels light yellow, medium-small, flat, dent. Cobs white with 12 rows. **disease resistance:** Above average to northern corn blight. **Breeding Material.** Seed.
- PI 517971 **donor id:** PA 468. **origin:** United States. **pedigree:** Selection from an Indian corn population. **other id:** PL-106. **source:** Crop Sci. 28(5):0876. **group:** CSR-MAIZE. **remarks:** Plants about 140cm tall, good stalk strength, good combining ability as male or female, tendency for multiple ears. Kernels medium-yellow, round, dent, cobs red with 14 rows. **disease resistance:** Fair to northern corn blight. **Breeding Material.** Seed.

PI 517972 to 517974. *Zea mays* L. POACEAE Corn

**Donated by:** Johnson, N.W., Ayers, J.E., Agronomy Dept., Penn State Univ., Tyson Building, Plant Pathology Dept., Penn State Univ., University Park, Pennsylvania, United States. Received March 15, 1988.

- PI 517972 **donor id:** PA877. **origin:** United States. **pedigree:** Selection from PAWF9 synthetic. **other id:** PL-107. **source:** Crop Sci. 28(5):0876. **group:** CSR-MAIZE. **remarks:** Plants about 180cm tall, mid to late AES 800 maturity. Inbred line. Leaves spreading, medium-green. Tassels branched, medium-sized. Kernels round, medium-yellow, dent. Cobs red, 12 rowed. Potential value to seed industry and use in breeding programs. **disease resistance:** High to grey leaf spot (GLS). Above average to northern leaf blight and northern leaf spot. **Breeding Material.** Seed.

PI 517972 to 517974-continued

PI 517973 **donor id:** PA879. **origin:** United States. **pedigree:** Selection from PAWF9 Syn 1. **other id:** PL-108. **source:** Crop Sci. 28(5):0876. **group:** CSR-MAIZE. **remarks:** Plants about 195cm tall, mid to late AES 800 maturity. Inbred line. Leaves semi-erect, dark-green. Tassels semi-erect, medium-branched. Kernels medium-sized, flat, long. Cobs white, 16-18 rowed. Potential value to seed industry and use in breeding programs. **disease resistance:** Above average to grey leaf spot (GLS). Very good to northern leaf spot. Above average to northern leaf blight. Breeding Material. Seed.

PI 517974 **donor id:** PA880. **origin:** United States. **pedigree:** Selection from PAWF9 Synthetic population. **other id:** PL-109. **source:** Crop Sci. 28(5):0876. **group:** CSR-MAIZE. **remarks:** Plants about 165cm tall, mid to late AES 800 maturity. Inbred line. Crosses with PA880 have good stalk quality. Kernels small, round, medium-yellow. Cobs white, 16 rowed. **disease resistance:** Grey leaf spot (GLS). Fair to northern leaf blight. Breeding Material. Seed.

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 517975 **origin:** United States. **remarks:** May be same accession as local 145-20. Received at clonal site in 1966. Perennial. Wild. Cutting.

PI 517976 **origin:** United States. **remarks:** May be same accession as local 147-20. Received at clonal site in 1966. Perennial. Wild. Cutting.

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.

**origin:** China, Peoples Repub of. **remarks:** Lacks cold hardiness. Received at clonal site in 1982. Perennial. Wild. Cutting.

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 **origin:** United States. **other id:** B-53-02-44. **remarks:** Identification probably assigned by J. McKay, Beltsville. Received at clonal site in 1982. Perennial. Cutting.
- PI 517979 **origin:** United States. **other id:** B-51-20-31. **remarks:** Identification probably assigned by J. McKay, Beltsville. Received at clonal site in 1982. Perennial. Cutting.
- PI 517980 **origin:** United States. **other id:** B-51-20-48. **remarks:** Identification probably assigned by J. McKay, Beltsville. Received at clonal site in 1966. Perennial. Cutting.
- PI 517981 **origin:** United States. **other id:** B-52-02-44. **remarks:** Identification probably assigned by J. McKay, Beltsville. Received at clonal site in 1982. Perennial. Cutting.
- PI 517982 **origin:** United States. **other id:** B-53-01-121. **remarks:** Identification probably assigned by J. McKay, Beltsville. Received at clonal site in 1982. Perennial. Cutting.
- PI 517983 **origin:** United States. **other id:** H-53-16-15. **remarks:** Identification may be B-53-16-15 assigned by J. McKay, Beltsville. Received at clonal site in 1966. Perennial. Cutting.
- PI 517984 **origin:** United States. **other id:** H-53-16-2. **remarks:** Identification may be B-53-16-2 assigned by J. McKay, Beltsville. Received at clonal site in 1966. Perennial. Cutting.
- PI 517985 **origin:** United States. **cultivar:** JAY UNDERWOOD. **pedigree:** *C. illinoensis*/*C. cordiformis*//*C. laciniosa*. **locality:** Burbon Co., Ft. Scott. **remarks:** Plants vigorous. Protogynous. Fruit large nut with thin shell. Kernel plump. Flavor fine. Production medium. Introduced in 1956 by Louis Gerardi Nursery, O'Fallon, Illinois. Donated by J.S. Underwood. Received at clonal site in 1952. Perennial. Cultivar. Cutting.
- PI 517986 **origin:** United States. **local name:** Pleas. **remarks:** Received at clonal site 1983. Perennial. Cultivated. Cutting.
- PI 517987 **origin:** United States. **local name:** Shag pecan. **remarks:** Received at clonal site in 1982. Perennial. Cutting.

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. **remarks:** Shell thick, brittle.  
Kernels come out clean. Resembles hickory in flavor. Good  
producer. Donated by William D. Adams, Tamu Co. Ext.  
Agent. Received at clonal site in 1986. Perennial.  
Wild. Cutting.

PI 517992 to 518145. *Carya illinoensis* (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. **remarks:** Plants vigorous. Nuts  
medium, prolific. Kernel percentage high. Shells easily.  
Clusters large. Resembles Nugget and Zenith. Seedling  
selection. Donated by N.H. Hander. Received at clonal  
site in 1983. Perennial. Cultivated. Cutting.
- PI 517994 **origin:** United States. **local name:** Altman. **locality:**  
Burnet, Burnet County. **remarks:** Protandrous. Nuts large,  
proflic. Good cracker. Shell very thin. Donated by R.A.  
Altman. Received at clonal site in 1983. Perennial.  
Wild. Cutting.

PI 517992 to 518145-continued

- PI 517995 **origin:** United States. **cultivar:** APACHE. **pedigree:** Burkett/Schley. **other id:** Selection No. 40-4-17. **other id:** T-110. **remarks:** Plants vigorous. Protogynous. Maturity medium. Nuts large, well filled. Shell thin, good. Kernel percentage high. Kernel bright. Deteriorates slowly in storage. Susceptible to scab. Donated by L.D. Romberg. Received at clonal site in 1947. Perennial. Cultivar. Cutting.
- PI 517996 **origin:** United States. **local name:** B-7. **locality:** Richland Springs, San Saba County. **remarks:** Plants vigorous. Protogynous. Maturity early. Fruits well. Kernel percentage high. Mahan seedling. Donated by J.L. Rainey. Received at clonal site in 1983. Perennial. Cultivated. Cutting.
- PI 517997 **origin:** United States. **cultivar:** BARTON. **pedigree:** Moore/Success. **other id:** Selection No. 37-3-20. **other id:** T-15. **remarks:** Plants vigorous. Branches freely. Protandrous. Buds and leaves late spring. Nuts large (53/lb). Maturity medium- early. Production early, moderately heavy. Kernel percentage high. Nuts elongated, medium with blunt ends. Color bright. Flavor rich. High oil content. Good cracker. Shuck thin. Received at clonal site in 1945. Perennial. Cultivar. Cutting.
- 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 **origin:** United States. **local name:** Brake. **other id:** Pat. No. 47. **locality:** Rocky Mount, Edgecomb County. **remarks:** Branching moderately fine. Foliage good. Protandrous. Maturity late. Bearing light. Kernel percentage high. Shell very thin, early. Williamson (N.C.) seedling. Donated by W.H. Brake. Received at clonal site in 1935. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- PI 518002 **origin:** United States. **local name:** Bridges. **locality:** Wise County. **remarks:** Branching medium fine. Bud and leaf break late spring. Protandrous. Nuts small. Good cracker and shelling. Received at clonal site in 1935. Perennial. Wild. Cutting.
- PI 518003 **origin:** United States. **local name:** Brooks. **locality:** Brooks County. **remarks:** Branching moderate. Leaves above average in size. Protogynous. Nut small, bears profusely. Maturity medium. Nuts medium. Excellent cracker. Shell dark, unattractive, football shaped, moderate thickness. Shells nicely. Kernels average attractiveness with wide open grooves. Good disease resistance. Seedling. Donated by B.W. Stone. Received at clonal site in 1982. Perennial. Cultivated. Cutting.
- PI 518004 **origin:** United States. **local name:** Burkett. **locality:** Near Battlecreek, Clyde, Callahan County. **remarks:** Protogynous. Nuts large (43/lb), light production. Shell thin. Nuts split, poor filling, sprout on trees. Kernel with small dark flecks. Severe rosette. Scab susceptible. Foliage sensitive to aphid punctures. Freeze damage 50% to Stuart top graft in Oklahoma. Slight freeze damage in Georgia. Donated by J.H. Burkett. Received at clonal site in 1932. Perennial. Wild. Cutting.
- PI 518005 **origin:** United States. **local name:** Busseron, Bucereon. **locality:** Vincennes, Knox County. **remarks:** Protandrous. Pollen production high. Nuts medium (62/lb). Scabs in Kentucky. Full season in Illinois. Donated by M.J. Niblack. Received at clonal site in 1983. Perennial. Wild. Cutting.
- PI 518006 **origin:** United States. **cultivar:** CADD0. **pedigree:** Brooks/Alley. **other id:** Philema #1175. **locality:** Philema, Lee County. **remarks:** Protandrous. Nuts medium (60/lb). Quality good. Production high. Precocious. Maturity medium. Kernel percentage high (57%). Size, shape and shelling good. Shell dark. Flavor excellent. Scab susceptible. Received at clonal site in 1968. **disease resistance:** May resist Bunch disease. Perennial. Cultivar. Cutting.
- PI 518007 **origin:** United States. **local name:** Candy. **locality:** Ocean Springs, Jackson County. **remarks:** Protogynous. Nuts medium (66/lb). Maturity early. Production heavy. Shell thick. Excellent cracker. Quality good. Open grooves. Trace nut scab in Louisiana. Slight 2n chlorosis. Seedling on W.B. Schmidt property. Donated by T. Bechtel. Received at clonal site in 1946. Perennial. Cultivated. Cutting.



PI 517992 to 518145-continued

- PI 518008 **origin:** United States. **origin institute:** North Carolina Agri. Exp. Sta., North Carolina. **local name:** Cape Fear. **locality:** Pender County, Willard. **remarks:** Protandrous. Dichogamy protandrous to overlap in Louisiana. Nuts large (52/lb). Adapted to high density planting. Moderate resistance to scab in Alabama. Schley seedling. Received at clonal site in 1971. Perennial. Cultivated. Cutting.
- PI 518009 **origin:** United States. **local name:** Carmichael. **locality:** Gonzales County, Harwood. **remarks:** Protogynous. Nuts medium (73/lb). Maturity medium. Kernel percentage high (62%). Not precocious. Good cracker. Lack of central partition septum unusual. Donated by J.R. Carmichael. Received at clonal site in 1935. Perennial. Wild. Cutting.
- PI 518010 **origin:** United States. **local name:** Centennial. **locality:** Vacherie, St. James Parish. **remarks:** Protandrous. Nuts medium (66/lb), long. Late bearer. Medium to good cracker. Shell medium. Seedling. Donated by A. Bourgeois. Received at clonal site in 1982. Perennial. Cultivated. Cutting.
- PI 518011 **origin:** United States. **cultivar:** CHEROKEE. **pedigree:** Schley/Evers. **remarks:** Protandrous. Maturity early. Branching profuse. Nuts medium (60/lb), high number per cluster. Production high. Quality high. Shape good for shelling. Kernel percentage 58, medium. Vigor high, very precocious. Prolific. Freeze damage 68% in Georgia. Ideally suited for high density plantings. Received at clonal site in 1949. **disease resistance:** Downy spot. Perennial. Cultivar. Cutting.
- PI 518012 **origin:** United States. **cultivar:** CHEYENNE. **pedigree:** Clark/Odom. **other id:** Selection No. 42-13-2. **remarks:** Protandrous. Lateral branching profuse. Nuts medium (58/lb). Highly precocious. Maturity medium. Kernel percentage high (59%). Good shelling. Good cracker. Kernel color bright. Nuts moderately blocky. Well adapted to shelling by commercial machinery. Received at clonal site in 1943. Perennial. Cultivar. Cutting.

PI 517992 to 518145-continued

- 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 518014 **origin:** United States. **cultivar:** CHOCTAW. **pedigree:** Success/Mahan. **other id:** Selection No. 46-15-276. **remarks:** Protogynous. Branches freely. Leaves held late in autumn. Leaves and buds late in spring. Nuts large (45/lb). Maturity late. Production early and high. Kernel percentage high. Shell very thin. Good cracker. Kernel color bright. Oil content high. Flavor rich. Received at clonal site in 1966. 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. McDaniel. Received at clonal site in 1975. **disease resistance:** Leaf fungi. Perennial. Wild. Cutting.
- PI 518016 **origin:** United States. **local name:** Colorado. **locality:** San Saba, San Saba County. **remarks:** Protogynous. Leaf and bud break late. Nuts large (56/lb). Shell thin. Good cracker. Nut blocky, undersirable. San Saba seedling. Donated by E.G. Risien. Received at clonal site in 1935. Perennial. Cultivated. Cutting.
- PI 518017 **origin:** United States. **origin institute:** National Clonal Germplasm Repository, Brownwood, Texas. **cultivar:** COMANCHE. **pedigree:** Burkett/Success. **other id:** Selection No. 37-8-22. **remarks:** Plants vigorous. Protogynous. Buds long and pointed. Nut large. Moderate bearer. Shuck of medium thickness. Kernel bright, free of dark flecks. Stores well without becoming rancid and dark. Less susceptible to scab and downy spot than Burkett. Disease resistant. Received at clonal site in 1970. Perennial. Cultivar. Cutting.
- PI 518018 **origin:** United States. **locality:** Perkins, Payne County. **remarks:** Protogynous. Nuts large (40/lb), 6-7 per cluster. Seedling. Resembles Williamson. Donated by O.E. Cowley. Received at clonal site in 1969. **disease resistance:** Scab. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- PI 518019 **origin:** United States. **local name:** Coy. **locality:** Columbus, Cherokee County. **remarks:** Protogynous. Nuts small (88/lb). Maturity early. Kernel percentage high (57%). Shell thin. Donated by C. Stevens. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- PI 518020 **origin:** United States. **local name:** Curtis, Curtis #2. **locality:** Orange Height, Alachua County. **remarks:** Plants finely branched, slow grower. Protogynous. Nuts small (89/lb). Production high. Maturity medium-late. Kernel percentage high (57%). Shell thin. Excellent cracker. Slight freeze damage in Georgia. Turkey egg seedling. Donated by J. B. Curtis. Received at clonal site in 1950. **disease resistance:** Scab. Perennial. Cultivated. Cutting.
- PI 518021 **origin:** United States. **cultivar:** DESIRABLE. **pedigree:** Success/Jewett. **locality:** Ocean Springs, Jackson County. **remarks:** Leaves large, early in spring. Shoots thick, does not branch. Protandrous. Nuts large (47/lb), prolific. Kernel bright, attractive. Susceptible to bunch disease. Donated by C. Forkert. Received at clonal site in 1933. Perennial. Cultivar. Cutting.
- 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. **remarks:** Protandrous. Nuts small (80/lb). Maturity early. Excellent cracker. Scab susceptible. Freeze damage 50% to stuart top graft in Oklahoma. Donated by E. Dooley. Received at clonal site in 1984. Perennial. Wild. Cutting.
- PI 518026 **origin:** United States. **local name:** Elliott, H. Elliot. **locality:** Milton, Santa Rosa County. **remarks:** Protogynous. Nuts medium (68/lb). Moderate bearer. Shell medium. Easy cracker. Seedling. Donated by H. Elliot. Received at clonal site in 1952. **disease resistance:** Scab in Alabama and Louisiana. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- PI 518027 **origin:** United States. **local name:** Evers. **locality:** Denton, Denton County. **remarks:** Plants vigorous, leaves early. Protogynous. Nuts medium, Prolific. Maturity early. Shell thin. Scab susceptible. Seedling nut from Mexico or south Texas. Donated by W.T. Evers. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- PI 518028 **origin:** United States. **local name:** Family Use. **locality:** San Saba County. **remarks:** Donated by Risien. Received at clonal site in 1935. Perennial. Wild. Cutting.
- PI 518029 **origin:** United States. **local name:** Farley. **locality:** Jackson County. **remarks:** Protogynous. Shell thin. Nut blocky. Scabbing slight. Seedling. Donated by B.W. Stone. Received at clonal site in 1951. Perennial. Cultivated. Cutting.
- PI 518030 **origin:** United States. **local name:** Fayette. **locality:** Lagrange, Fayette County. **remarks:** Seedling. Received at clonal site in 1980. Perennial. Cultivated. Cutting.
- PI 518031 **origin:** United States. **local name:** Flack. **remarks:** Protandrous. Received at clonal site in 1982. Perennial. Wild. Cutting.
- PI 518032 **origin:** United States. **cultivar:** FORKERT, FORKETT. **pedigree:** Success/Schley. **locality:** Ocean Springs, Jackson County. **remarks:** Protogynous. Nuts large (49/lb). Kernel percentage high (62%). Donated by C. Forkert. Received at clonal site in 1975. Perennial. Cultivar. Cutting.
- PI 518033 **origin:** United States. **local name:** Foster. **locality:** Guadalupe River, Gonzales County. **remarks:** Protogynous. Buds early. Maturity early. Yield good. In branching, tree tends to form narrow forks susceptible to splitting. Donated by H.C. Morrison. Received at clonal site in 1953. Perennial. Wild. Cutting.
- PI 518034 **origin:** United States. **local name:** Freeman. **locality:** Sargent, Matagorda County. **remarks:** Protogynous. Nuts small. Shell thin. Easy cracker. Donated by H.T. Freeman. Received at clonal site in 1939. Perennial. Wild. Cutting.
- PI 518035 **origin:** United States. **local name:** Gibson. **other id:** RGCT876-1. **locality:** New Boston, Mercer County. **remarks:** Received at clonal site in 1987. Perennial. Wild. Cutting.

PI 517992 to 518145-continued

- PI 518036 **origin:** United States. **local name:** Giles. **locality:** Near Neosho River, Chetopa, Cherokee County. **remarks:** Protandrous, reported as protogynous in Illinois. Dichogamy incomplete in Kansas. Nuts small (74/lb). Maturity early, late in Illinois. Precocious, prolific. Shell thin. Good cracker. Some scab in Kentucky low ground. No freeze damage to stuart top graft in Oklahoma. Donated by A.E. Giles. Received at clonal site in 1975. Perennial. Wild. Cutting.
- PI 518037 **origin:** United States. **local name:** Gloria Grande, Gloria, Gloria Grand, Gloria Swanson. **locality:** Orangeburg, Orangeburg County. **remarks:** Protogynous. Nuts large (48/lb). Shell thick. Freeze damage 47% in Georgia. Seedling. Donated by W.W. Watson. Received at clonal site in 1952. **disease resistance:** Scab. Perennial. Cultivated. Cutting.
- PI 518038 **origin:** United States. **local name:** Golden, Dos, Doss. **locality:** Near Colorado River, Lampasas County. **remarks:** Protogynous. Nuts small (80/lb). Late bearer. Kernel percentage high (61%). Good cracker. Donated by J.A. Evans. Received at clonal site in 1983. Perennial. Wild. Cutting.
- PI 518039 **origin:** United States. **local name:** Goldthwaite. **locality:** Goldthwaite, Mills County. **remarks:** Protandrous. Nut quality high. Shy bearer. Received at clonal site in 1967. Perennial. Wild. Cutting.
- PI 518040 **origin:** United States. **local name:** Govett, Calaro, Caloro, Govette. **locality:** Seguin, Guadalupe County. **remarks:** Protogynous. Nuts large (55/lb). Alternate bearing. Kernel percentage high (57%). Shell thin. Good cracker. Donated by R.C. Govett. Received at clonal site in 1937. Perennial. Wild. Cutting.
- PI 518041 **origin:** United States. **local name:** Grabohls, Grabold, Mary. **other id:** Pat. No. 3434. **locality:** Austin, Travis County. **remarks:** Protogynous. Nuts large (38/lb). Kernel percentage high (58%). Shell very thin. Susceptible to scab. Seedling. Donated by H.C. Bohls. Received at clonal site in 1967. Perennial. Cultivated. Cutting.
- PI 518042 **origin:** United States. **local name:** Gracross. **other id:** Pat. No. 4236. **locality:** Greenville, Hunt County. **remarks:** Protogynous. Nuts large (43/lb). Maturity medium. Thin shell. Easy cracker. Seedling. Donated by H. Cross. Received at clonal site in 1975. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- PI 518043 **origin:** United States. **local name:** Graking, Gra-King. **locality:** Hugo, Choctaw County. **remarks:** Nuts large (40/lb). Maturity early. Mahan seedling (resembles Mahan). Received at clonal site in 1975. Perennial. Cultivated. Cutting.
- PI 518044 **origin:** United States. **cultivar:** GRATEX. **pedigree:** Ideal/Success. **locality:** Arlington, Tarrant County. **remarks:** Protogynous. Nuts large (50/lb). Maturity early. Kernel percentage high (58%). Shell very thin. Donated by O.S. Gray, Jr. and J.A. Evans. Received at clonal site in 1975. Perennial. Cultivar. Cutting.
- PI 518045 **origin:** United States. **local name:** Grazona. **locality:** Mesa, Maricopa County. **remarks:** Protogynous. Nuts large (42/lb). Shell thin. Seedling resembles Burkett. Donated by L. Coe. Received at clonal site in 1937. Perennial. Cultivated. Cutting.
- PI 518046 **origin:** United States. **local name:** Greenriver. **locality:** Henderson, Henderson County. **remarks:** Protogynous. Nuts small (70/lb). Maturity late in Illinois. Shell thick. Freeze damage 33% to stuart top graft in Oklahoma. Donated by L.B. Major. Received at clonal site in 1983. **disease resistance:** Scab in Kentucky. Perennial. Wild. Cutting.
- PI 518047 **origin:** United States. **local name:** Gormely, Gormley. **locality:** Okemah, Okfuskee County. **remarks:** Nuts small (90/lb), 3-4 per cluster. Maturity very early. Good shade trees. Donated by G.G. Gormely. Received at clonal site in 1967. **disease resistance:** Scab. Perennial. Wild. Cutting.
- PI 518048 **origin:** United States. **local name:** Donald Grotian, Don Grotjan, Grotjan. **locality:** Brunswick, Chariton County. **remarks:** Donated by D. Grotian. Received at clonal site in 1973. Perennial. Wild. Cutting.
- PI 518049 **origin:** United States. **origin institute:** Guidry Nursery, Louisiana. **local name:** Guidry. **locality:** St. Martinville, St. Martin Parish. **remarks:** Nuts medium (64/lb). Seedling. Received at clonal site in 1982. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- 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:** RGCT875-1. **remarks:** Received at clonal site in 1987. Perennial. Wild. Cutting.
- PI 518052 **origin:** United States. **local name:** Harris Super. **locality:** Gunnison, Bolivar County. **remarks:** Possible pedigree Stuart/Schley (resembles Schley). Scab susceptible. Seedling. Donated by E. Harris. Received at clonal site in 1974. Perennial. Cultivated. Cutting.
- PI 518053 **origin:** United States. **local name:** Hastings. **other id:** Pat. No. 1399. **locality:** Monticello, Jasper County. **remarks:** Protogynous. Maturity medium. Nuts medium (68/lb). Shell very thin. Excellent cracker. Stuart seedling. Donated by G.T. Chaffin. Received at clonal site in 1983. Perennial. Cultivated. Cutting.
- PI 518054 **origin:** United States. **local name:** Hayes, Hays. **locality:** Deep Fork River, Lincoln County. **remarks:** Protogynous. Nuts small (92/lb). Maturity medium. Kernel percentage high (61%). Shell thin. Scab susceptible. Freeze damage 52% to stuart top graft in Oklahoma. Received at clonal site in 1984. Perennial. Wild. Cutting.
- PI 518055 **origin:** United States. **local name:** Hirschi, Hershi, Hirschi Hardy, Steuck. **locality:** Rich Hill, Bates County. **remarks:** Protandrous. Nuts small (72/lb). Maturity very early. Precocious. Very hardy. Donated by J.W. Tiedke. Received at clonal site in 1984. Perennial. Wild. Cutting.
- PI 518056 **origin:** United States. **local name:** Humble. **other id:** Pat. No. 73. **locality:** Uvalde, Uvalde County. **remarks:** Growth vigorous. Small chilling requirement. Nuts large (48/lb). Precocious. Heavy producer. Donated by J.A. Simpson. Received at clonal site in 1933. Perennial. Wild. Cutting.

PI 517992 to 518145-continued

- PI 518057 **origin:** United States. **local name:** Ideal, Bradley (in New Mexico). **locality:** San Saba, San Saba County. **remarks:** Protogynous. Nuts small (75/lb). Kernel percentage high (58%). Shell thin. Nuts well filled. Scal susceptible. Donated by J.A. Evans. Received at clonal site in 1933. Perennial. Wild. Cutting.
- PI 518058 **origin:** United States. **local name:** Imperial. **locality:** San Antonio, Bexar County. **remarks:** Nuts large (28/lb). Shell medium thin. Kernel percentage high (58%). Easy cracker. Seedling. Donated by E.W. Ross. Received at clonal site in 1984. Perennial. Cultivated. Cutting.
- 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. **remarks:** Protogynous. Fast growing. Susceptible to vein spot. Incomplete dichogamy in MS. Donated by F. Bechtel. Received at clonal site in 1986. **disease resistance:** Scab. Perennial. Cultivated. Cutting.
- 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. **remarks:** Protogynous. Nuts medium (60/lb), prolific. Bears well a Shreveport and Brownwood. Shell and kernel characteristics average. No scabs. Resembles Van Deman. Seedling. Donated by Hess. Received at clonal site in 1953. Perennial. Cultivated. Cutting.
- PI 518063 **origin:** United States. **origin institute:** Fruitland Nursery, Georgia. **local name:** Jerome. **locality:** Augusta, Richmond County. **remarks:** Protandrous. Nuts large (52/lb). Shell hard. Fair cracker. Rome seedling. Obsolete. Received at clonal site in 1983. Perennial. Cultivated. Cutting.



PI 517992 to 518145-continued

- PI 518064 **origin:** United States. **local name:** Jersey, Commercial. **locality:** San Saba, San Saba County. **remarks:** Protogynous. Nuts small (78/lb). Kernel percentage high (62%). Shell very thin. Excellent cracker. Sutures deep. Susceptible to scab. San Saba seedling. Sibling of Onliwon, Texas 60, San Saba Imp., and Western Schley. Donated by G. Risien. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- PI 518065 **origin:** United States. **cultivar:** JOHN GARNER. **pedigree:** San Saba Imp./Onliwon. **local name:** John Garner, Garner. **locality:** San Saba, San Saba County. **remarks:** Plants vigorous. Protandrous. Nuts large, prolific. Shell thin. Resembles Burkett. Donated by E.E. Risien. Received at clonal site in 1982. Perennial. Cultivar. Cutting.
- PI 518066 **origin:** United States. **local name:** Johnson. **remarks:** Protogynous. Received at clonal site in 1956. Perennial. Wild. Cutting.
- PI 518067 **origin:** United States. **local name:** Keilers. **locality:** Austin, Travis County. **remarks:** Nuts large. Resembles Desirable. Donated by W.G. Keilers. Received at clonal site in 1983. Perennial. Wild. Cutting.
- PI 518068 **origin:** United States. **local name:** Kentucky Sdlg. **remarks:** Seedling. Received at clonal site 1975. Perennial. Cultivated. Cutting.
- PI 518069 **origin:** United States. **local name:** Kernodle, Kernodel, Kernold. **other id:** Pat. No. 1744. **locality:** Camphill, Tallaposa County. **remarks:** Maturity medium late. Nuts medium (63/lb). Shell very thin. Easy cracker. Scab control WC in Georgia. Seedling. Resembles Frotscher. Donated by J.A. Kernodle. Received at clonal site in 1967. Perennial. Cultivated. Cutting.
- PI 518070 **origin:** United States. **origin institute:** Burgess Seed and Plant Co., Michigan. **local name:** Kibler, Kilber. **locality:** Coloma, Van Buren County. **remarks:** Nuts small. Maturity very early. Paper shell type, 90% halves. Seedling. Received at clonal site in 1983. Perennial. Cultivated. Cutting.
- PI 518071 **origin:** United States. **local name:** Kincaid, Kinkaid. **locality:** J.B. Donnelly farm, San Saba, San Saba County. **remarks:** Protogynous. Nuts large (48/lb). Shell thin, brittle. Very good cracker. Scab susceptible. Donated by E.E. Risien. Received at clonal site in 1984. Perennial. Wild. Cutting.

PI 517992 to 518145-continued

- PI 518072 **origin:** United States. **cultivar:** KIOWA. **pedigree:** Mahan/Odom. **other id:** Selection No. 53-9-191. **remarks:** Canopy large. Protogynous. Cross pollinates with many varieties. Precocious. Prolific. Maturity late. Nuts large (45/lb). Kernel percentage high (58%). Nut oblong. Shell shape, size, and appearance good. Quality good. Scab susceptible. Received at clonal site in 1966. Perennial. Cultivar. Cutting.
- PI 518073 **origin:** United States. **local name:** Kuyken Dall. **locality:** Kuykendall Ranch, San Saba, San Saba County. **remarks:** Tree, semi-dwarf. Protandrous. Nuts small. Maturity medium. early. Shell thin. Good grade for shelling. Donated by E.E. Risien. Received at clonal site in 1952. 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. **remarks:** Protogynous (homozygous). Prolific. Precocious. Nuts large (35/lb). Kernel percentage high (56%). Shell thin. Freeze damage 33% to stuart top graft in Oklahoma. May be Schley seedling. Donated by J.M. Chestnut. Received at clonal site in 1964. Perennial. Cultivated. Cutting.
- PI 518076 **origin:** United States. **local name:** Major. **locality:** Near Green River, Henderson, Henderson County. **remarks:** Leaves large. Protandrous. Late in Illinois. Nuts small (84/lb). Maturity early. Bears well. Shell thin, brittle. Easy cracker. Shell blocky. Moderate thickness. Standard of older varieties in southern two-thirds of Illinois and Indiana. No freeze damage to stuart top graft in Oklahoma. Donated by S.I.M. Major. Received at clonal site in 1933. **disease resistance:** Scab in Kentucky. Perennial. Wild. Cutting.
- PI 518077 **origin:** United States. **local name:** Maramec. **locality:** Maramec, Pawnee County. **remarks:** Protogynous. Nuts large (45/lb), 4-5 per cluster. Maturity medium. Kernel percentage high (59%). Nut oblong. Shell thin. Mahan seedling. Donated by E. Charlton. Received at clonal site in 1974. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- 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. Perennial. Cultivated. Cutting.
- PI 518079 **origin:** United States. **local name:** McCulley, McCully. **locality:** One-fourth mile from Peacn Field Station, Brownwood, Brown County. **remarks:** Protandrous. Nuts large (57/lb). Shy bearer. Kernel percentage high (59%). Shell thin. Easy cracker. Scab susceptible. Donated by W.D. McCulley. Received at clonal site in 1975. Perennial. Wild. Cutting.
- 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. Perennial. Cultivated. Cutting.
- PI 518081 **origin:** United States. **local name:** McNeil. **remarks:** Protogynous. Flowering early. Received at clonal site in 1982. Perennial. Wild. Cutting.
- PI 518082 **origin:** United States. **local name:** Meyers. **locality:** Austin, Travis County. **remarks:** Shell flinty. Received at clonal site in 1934. Perennial. Wild. Cutting.
- 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. Perennial. Wild. Cutting.
- 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. **remarks:** Plants vigorous. Leaves large, held late in Autumn. Protogynous. Catkins mature and shed pollen while pistillate flowers still reseptive. Nuts large (35/lb). Maturity early. Precocious. Kernel percentage high (60%). Shell thin, flinty. High quality. Good producer. Leaves disease resistant. Received at clonal site in 1966. Perennial. Cultivar. Cutting.

PI 517992 to 518145-continued

- PI 518085 **origin:** United States. **local name:** Moneymaker, James Money Maker, Money Maker. **other id:** RGCT877-1. **locality:** Mound, Madison County. **remarks:** Protogynous. Maturity early. Nut roundish. Shell medium thickness. Good cracker. Prolific. Precocious. Nut medium (62/lb). Freeze killed 1-3 year wood in Oklahoma, 1-year wood freeze killed in Georgia. Seedling. Received at clonal site in 1987. Perennial. Cultivated. Cutting.
- PI 518086 **origin:** United States. **local name:** Moore, Bester (S. Africa), Longmoore, Moore #1, Moore #2. **locality:** Waukeenah, Jefferson County. **remarks:** Strong grower. Protandrous. Nuts medium (67/lb). Maturity early. Prolific. Precocious. Shell medium thin, brittle. Good cracker. Scab and bunch disease susceptible. "Fuzz" may adhere badly. Seedling. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- PI 518087 **origin:** United States. **origin institute:** Bass Nursery, Louisiana. **local name:** Moreland, Louisiana Schley. **locality:** Powhatan, Natchitoches Parish. **remarks:** Protogynous. Nuts medium. Kernel percentage high (57%). Resembles Schley. Seedling. Donated by J.E. Moreland. Received at clonal site in 1983. **disease resistance:** Scab and Bunch. Perennial. Cultivated. Cutting.
- PI 518088 **origin:** United States. **local name:** Mount. **locality:** Okmulgee, Okmulgee County. **remarks:** Protogynous. Nuts small (75/lb). Nut maturity early. Excellent sheller. Resembles Jersey. Donated by E.E. Mount. Received at clonal site in 1967. **disease resistance:** Scab in Oklahoma. Perennial. Wild. Cutting.
- PI 518089 **origin:** United States. **local name:** Nellis, Nulls, Nelles. **locality:** Whittier, Ventura County. **remarks:** Protogynous. Appears self-fruitful. Nut pointed. Shell thin. Medium long. Seedling. Donated by E.T. Stoddard. Received at clonal site in 1975. Perennial. Cultivated. Cutting.
- PI 518090 **origin:** United States. **local name:** Nelson. **locality:** Hancock County. **remarks:** Plants vigorous. Foliage large. Protandrous. Nuts large (47/lb). Prolific. Shell hard, thick. Fair cracker. Obsolete. Leaf out and shed pollen early. Donated by W. Nelson. Received at clonal site in 1953. **disease resistance:** Scab. Perennial. Wild. Cutting.

PI 517992 to 518145-continued

- PI 518091 **origin:** United States. **local name:** Nugget, Nuggett. **locality:** Near Leon River, Gustine, Comanche County. **remarks:** Leaves medium. Branching moderately fine. Protogynous. Nuts small (86/lb). Consistent, good bearer. Ripening date average. Kernal percentage high (57%). Shallow parallel grooves. Scab susceptible. Donated by J.A. Evans. Received at clonal site in 1933. Perennial. Wild. Cutting.
- PI 518092 **origin:** United States. **local name:** Odom. **locality:** Toledo, Newton County. **remarks:** Protogynous. Nuts large (46/lb). Shy bearer. Shell thin to very thin. Good cracker. Shape round. Seedling from Ocean Springs, Mississippi nut. Russell may be one parent. Disease resistant. Donated by R.L. Odom. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- PI 518093 **origin:** United States. **local name:** Oakla. **locality:** Okmulgee, Okmulgee County. **remarks:** Protogynous. Maturity early. Shell thin. Nut easily taken from shuck. Resembles Nugget. Donated by E.E. Mount. Received at clonal site in 1967. **disease resistance:** Scab in Oklahoma. Perennial. Wild. Cutting.
- PI 518094 **origin:** United States. **local name:** Oklahoma, Darden. **locality:** Ardmore, Carter County. **remarks:** Protandrous. Nuts small (23/lb). Maturity late. Bears well. Shell medium. Grooves large. Susceptible to Scab and pink mold. No central partition septum. Donated by O.K. Darden. Received at clonal site in 1936. Perennial. Wild. Cutting.
- PI 518095 **origin:** United States. **local name:** Oklahoma 603. **remarks:** Received at clonal site in 1984. Perennial. Wild. Cutting.
- PI 518096 **origin:** United States. **local name:** Onliwon, Only-One. **locality:** San Saba, San Saba County. **remarks:** Protandrous. Nuts medium (62/lb). Production moderate. Medium ripener. Kernel percentage high (61%). Shell very thin. Easy cracker. Sibling of Jersey, San Saba Imp., Texas 60, and Western Schley. San Saba seedling. Donated by E.E. Risien. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- PI 518097 **origin:** United States. **local name:** Osborne, Osborn, Osbourn. **locality:** Llano County. **remarks:** Nuts medium (68/lb). Nut football shaped. Kernel percentage high (59%). Kernel surface very smooth. Parallel grooves small. Donated by J.B. Stribling. Received at clonal site in 1933. Perennial. Wild. Cutting.

PI 517992 to 518145-continued

- PI 518098 **origin:** United States. **local name:** Owens, Chiles AAA. **locality:** Near Moon Lake, Cuba Island, Coahoma County. **remarks:** Shell medium thick. Good cracker. Seedling from Florida nursery. Disease resistant. Donated by F.M. Owens. Received at clonal site in 1971. Perennial. Cultivated. Cutting.
- 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. **remarks:** Protandrous (protogynous, Hinricks, 1962). Nuts small (115/lb). Maturity medium. Kernel percentage high (60%). Shell thin. Easy cracker. Freeze damage 33% to stuart top graft in Oklahoma. Received at clonal site in 1984. **disease resistance:** Scab in Oklahoma. Perennial. Wild. Cutting.
- 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. **remarks:** Plants fast growing with strong branch angles. Protandrous. Precocious. Prolific. Maturity early. Nuts large (50/lb). Yield potential high. Nut quality excellent. Kernel color good. In-shell appearance good. Kernel percentage high (58%). Scab susceptible. Potential cultivar for Northern production areas due to early nut maturity. Received at clonal site in 1971. **disease resistance:** Fair to Downy Spot. Perennial. Cultivar. Cutting.
- PI 518102 **origin:** United States. **local name:** Podsednik. **locality:** Arlington, Tarrant County. **remarks:** Protandrous. Nuts large (22/lb). Seedling. Donated by R. Podsednik. Received at clonal site in 1986. Perennial. Cultivated. Cutting.
- PI 518103 **origin:** United States. **local name:** Pointe Coupee #2, Pcou 02, Pecou II. **locality:** Pointe Coupee Parish. **remarks:** Nuts medium (69/lb). Maturity medium late. Received at clonal site in 1973. Perennial. Wild. Cutting.
- PI 518104 **origin:** United States. **local name:** Pensacola Cluster. **other id:** Pat. No. 2099. **locality:** Pensacola, Santa Rosa County. **remarks:** Protogynous. 6-10 nuts per cluster. Seedling. Resembles Van Deman. Disease resistant. Donated by E.W. Moring. Received at clonal site in 1983. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- PI 518105 **origin:** United States. **local name:** Peruque, Hunn, Pereque, Perique. **locality:** Peruque, St. Charles County. **remarks:** Protandrous. Nuts small (78/lb). Maturity early. Kernel percentage high (59%). Shell very thin. Poor sheller. Donated by R. Richerkessing. Received at clonal site in 1956. Perennial. Wild. Cutting.
- PI 518106 **origin:** United States. **local name:** Pioneer. **locality:** Marshall Underwood farm, Magnolia Springs, Baldwin County. **remarks:** Prolific. Early bearer. Seedling. Received at clonal site in 1984. **disease resistance:** Scab. Perennial. Cultivated. Cutting.
- PI 518107 **origin:** United States. **cultivar:** PLAINSMAN. **pedigree:** Mahan/Success. **local name:** Texas 46. **locality:** Near Court House, Plainview, Hale County. **remarks:** Received at clonal site in 1983. Perennial. Cultivar. Cutting.
- PI 518108 **origin:** United States. **local name:** Princeton. **other id:** RGCT871-1. **remarks:** Received at clonal site in 1987. Perennial. Wild. Cutting.
- PI 518109 **origin:** United States. **local name:** R-5010. **locality:** San Saba, San Saba County. **remarks:** Donated by E.G. Risien. Received at clonal site in 1982. Perennial. Wild. Cutting.
- PI 518110 **origin:** United States. **local name:** Red, Red Cobb. **locality:** Keo, Lonoke County. **remarks:** Nut similar to Sioux in size and shape. Donated by Cobb. Received at clonal site in 1972. Perennial. Wild. Cutting.
- PI 518111 **origin:** United States. **local name:** Ripe Early. **remarks:** Received at clonal site in 1945. Perennial. Wild. Cutting.
- PI 518112 **origin:** United States. **local name:** Risien 1. **locality:** San Saba, San Saba County. **remarks:** Protandrous. Maturity early. Excellent cracker. Kernel grooves shallow. Schley seedling. Donated by G. Risien. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- PI 518113 **origin:** United States. **local name:** Riverside. **locality:** Leonard's Big Valley Farm, Goldthwaite, Mills County. **remarks:** Protandrous. Used for rootstock. Thought to be from cross made by E.E. Risien. Seedling. Donated by H. Cockrell. Received at clonal site in 1971. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- PI 518114 **origin:** United States. **local name:** Roth. **locality:** Yoakum, De Witt County. **remarks:** Nuts large (55/lb). Maturity late. Shell thin. Excellent cracker. Donated by A. Roth. Received at clonal site in 1938. Perennial. Wild. Cutting.
- PI 518115 **origin:** United States. **local name:** Russell. **locality:** Ocean Springs, Jackson County. **remarks:** Protogynous. Nuts medium (66/lb). Shell thin-very thin. Good-excellent cracker. Seedling. Resembles Young for tree and nut. May be Young seedling sibling of Robson in Mississippi. Donated by C.E. Pabst. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- 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. **remarks:** Protandrous. Nuts small (103/lb). Kernel percentage high (64%). Shell very thin, brittle. Excellent cracker. Freeze killed 1-3 year wood in Oklahoma. Donated by E.E. Risien. Received at clonal site 1983. Perennial. Wild. Cutting.
- PI 518117 **origin:** United States. **local name:** San Saba Improved, Improved. **locality:** San Saba, San Saba County. **remarks:** Protandrous. Nuts medium (61/lb). Kernel percentage high (59%). Shell thin. Good cracker. Scab susceptible. San Saba seedling. Sibling of Jersey, Onliwan, Texas 60, and Western Schley. Donated by G. Risien. Received at clonal site in 1933. Perennial. Cultivated. Cutting.
- 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. **remarks:** Nuts large (45/lb). Precocious. Scab susceptible. Donated by F.F. Klein. Received at clonal site in 1984. Perennial. Wild. Cutting.
- PI 518120 **origin:** United States. **local name:** Seminole. **locality:** Waukeenah, Jefferson County. **remarks:** Protogynous. Nuts medium (60%). Bears regularly. Quality good. Seedling. Resembles Curtis. Received at clonal site in 1953. Perennial. Cultivated. Cutting.



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. **remarks:** Plants vigorous. Protogynous. Nuts medium (60/lb). Precocious. Prolific. Shell thin. Good cracker. Kernel percentage high (57%). Nuts well filled, high quality. Kernel color bright. Flavor excellent. Received at clonal site in 1958. **disease resistance:** Scab and other fungi. Perennial. Cultivar. Cutting.
- PI 518122 **origin:** United States. **local name:** Sherard. **locality:** Northwestern Delta, Coahoma County. **remarks:** Nuts medium. Moderately productive. Shell thin. Resembles Odem. Received at clonal site in 1982. Perennial. Wild. Cutting.
- 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. **remarks:** Plants vigorous. Growth upright. Branching good, strong. Protogynous. Nuts large (50/lb), good quality. Maturity early. Precocity. Prolific. Production high. Wide range of adaptability. Suited for use in high density plantings with less pruning required. Received at clonal site in 1966. **disease resistance:** High to Downy Spot. Scab. Perennial. Cultivar. Cutting.
- 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. **remarks:** Plants vigorous. Chilling requirement. Growing shoots strong. Lateral branches. Protogynous. Production heavy. Nuts medium. Maturity medium. Kernel percentage high (61%), and quality exceedingly high. Shell thin, medium brown. Oil content high. Flavor excellent. Deteriorate slowly in storage. Shelling good. Not affected by Scab or other foliage fungus disease. Received at clonal site in 1949. Perennial. Cultivar. Cutting.

PI 517992 to 518145-continued

- PI 518126 **origin:** United States. **local name:** Sovereign, Texas Prolific. **locality:** San Saba, San Saba County. **remarks:** Protandrous. Nuts large (51/lb). Shell medium thin, brittle. Easy cracker. Scab susceptible. Seven year wood freeze killed to ground in Oklahoma. San Saba seedling. Donated by E.E. Risien. Received at clonal site in 1983. Perennial. Cultivated. Cutting.
- PI 518127 **origin:** United States. **local name:** Squirrel's Delight, Delight, Squirrel (in OK). **locality:** San Saba, San Saba County. **remarks:** Protandrous. Nuts large (47/lb). Maturity early. Nuts lack symmetry. Grooves deep, parallel, secondary ones large. Scab susceptible. San Saba seedling. No particular value as a parent. Donated by E.E. Risien. Received at clonal site in 1932. Perennial. Cultivated. Cutting.
- PI 518128 **origin:** United States. **local name:** Starking Hardy Giant, Hard Giant, Hardy Giant (in OK), James #3, Stark Hardy Giant, Starking. **other id:** Pat. No. 1361. **locality:** Brunswick, Carroll County. **remarks:** Protandrous. Nuts small (78/lb). Maturity early. Shy bearer. Kernel percentage high (58%). Shell thin. Good cracker. Donated by G. James. Received at clonal site in 1957. Perennial. Wild. Cutting.
- PI 518129 **origin:** United States. **local name:** Stuart, Castanera, Casterama, Stewart. **locality:** Pascagoula, Jackson County. **remarks:** Protogynous. Nuts large (51/lb). Shell medium. Fair cracker. Parallel grooves large. Scabs in Alabama and Louisiana. Severe zinc chlorosis in Louisiana. Freeze damage 50% to stuart top graft in Oklahoma. Slight freeze damage in Georgia. Seedling from Alabama nut. Sister or sib variety to Success and Pabst, originating in the same seedling orchard. Donated by W.R. Stuart. Received at clonal site in 1955. **disease resistance:** High to Bunch. Perennial. Cultivated. Cutting.
- PI 518130 **origin:** United States. **local name:** Success. **locality:** Ocean Springs, Jackson County. **remarks:** Protandrous. Nuts large (48/lb). Late in Illinois. Shuck thin. Shell medium. Medium cracker. Kernel surface smooth and free of fuzz. Serve leaf and nut scab. Slight zinc chlorosis in Louisiana. Freeze damage 33% to stuart top graft in Oklahoma. Seedling. Apparently a sister or sib to Stuart and Pabst. Susceptible to Shuck disease. Donated by T. Bechtel. Received at clonal site in 1932. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- PI 518131 **origin:** United States. **origin institute:** New Mexico Agr. Exp. Station, Las Cruces, New Mexico. **cultivar:** SULLIVAN. **pedigree:** Stuart/Nugget. **locality:** Las Cruces, Dona Ana County. **remarks:** Protogynous. Nuts medium (65/lb), elongated. Maturity early (175 day approx. from pollination to shuck split). Shell thin. Kernel grooves medium wide. Received at clonal site in 1986. Perennial. Cultivar. Cutting.
- PI 518132 **origin:** United States. **local name:** Sumner. **locality:** Tift County. **remarks:** Protogynous. Nuts large (41/lb). Kernel percentage high (56%). Freeze damage 81% in Georgia. Seedling. Donated by W.E. Summer. Received at clonal site in 1971. Perennial. Cultivated. Cutting.
- PI 518133 **origin:** United States. **local name:** Super Stuart. **remarks:** Nuts large (43/lb). Alternate bearing. Shell thin. Resembles Stuart. Received at clonal site in 1984. **disease resistance:** Scab. Perennial. Wild. Cutting.
- PI 518134 **origin:** United States. **origin institute:** National Clonal Germplasm Repository, Brownwood, Texas. **cultivar:** TEJAS. **pedigree:** Mahan/Risien #1. **other id:** Selection No. 44-10-293. **remarks:** Plants vigorous. Branch angles strong with many lateral branches. Protogynous (dichogamy overlaps). Long pollen shedding and stigma receptivity periods. Precocious. Highly productive. Maturity medium. Nuts medium (68/lb). Kernel percentage medium (56%). Shell medium. Excellent cracking and shelling. Freeze damage 92% in Georgia. Received at clonal site in 1945. **disease resistance:** Scab. Perennial. Cultivar. Cutting.
- PI 518135 **origin:** United States. **local name:** Texas Giant. **remarks:** Received at clonal site in 1984. Perennial. Wild. Cutting.
- PI 518136 **origin:** United States. **local name:** Texhan. **locality:** Belton, Bell County. **remarks:** Protogynous. Nuts large (45/lb). Maturity early. Kernel percentage high (56%). Mahan seedling. Donated by N.H. Harder. Received at clonal site in 1949. Perennial. Cultivated. Cutting.
- PI 518137 **origin:** United States. **local name:** Vogt. **locality:** La Grande, Fayette County. **remarks:** Nuts large (52/lb). Kernel percentage high (61%). Easy sheller. Dorsal grooves shallow. Seedling. Resembles Delmas. Donated by H. Vogt. Received at clonal site in 1983. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

- PI 518138 **origin:** United States. **local name:** Wallops Is. **remarks:** Received at clonal site in 1975. Perennial. Wild. Cutting.
- PI 518139 **origin:** United States. **local name:** Welty. **locality:** Gordon, Palo Pinto County. **remarks:** Protandrous. Bud break and receptivity late. Nuts large (59/lb). Shell thin. Fair cracker. Good quality. Introduced by J.A. Evans. Donated by C. Boles. Received at clonal site in 1933. Perennial. Wild. Cutting.
- PI 518140 **origin:** United States. **local name:** Western Schley, Western, W. Schley. **locality:** San Saba, San Saba County. **remarks:** Plants vigorous. Protandrous. Precocious. Shuck thick. Nuts large (57/lb). Ripening midseason. Kernel percentage high (58%). Shell thin. Good cracker, but kernels break up. Freeze damage 67% to stuart top graft in Oklahoma. San Saba seedling. Sibling of Jersey, Onliwon, San Saba Imp., and Texas 60. Among heaviest bearers. Donated by E.E. Risien. Received at clonal site in 1932. Perennial. Cultivated. Cutting.
- PI 518141 **origin:** United States. **origin institute:** National Clonal Germplasm Repository, Brownwood, Texas. **cultivar:** WICHITA. **pedigree:** Halbert/Mahan. **other id:** Selection No. 40-9-193. **remarks:** Strong grower. Foliage good. Protogynous. Nut medium (61/lb). Precocious. Prolific. Early and heavy bearer. Kernel percentage high (59%). Freeze damage 77% in Georgia. High quality nuts. Scab control 42% with spray in Georgia. Received at clonal site in 1941. Perennial. Cultivar. Cutting.
- PI 518142 **origin:** United States. **cultivar:** WILLMANN. **pedigree:** Commonwealth/Schley. **local name:** Willman. **locality:** LaGrange, Fayette County. **remarks:** Protogynous. Nuts large (48/lb). Regular bearer. Kernel percentage high (58%). Good cracker. Resembles Schley. Donated by F.J. Willmann. Received at clonal site in 1984. Perennial. Cultivar. Cutting.
- PI 518143 **origin:** United States. **local name:** Witte. **locality:** Burlington, Des Moines County. **remarks:** Protandrous. Bears late. Most northern in origin. Donated by J.H. Witte. Received at clonal site in 1983. Perennial. Wild. Cutting.
- PI 518144 **origin:** United States. **origin institute:** Georgia Agr. Exp. Sta., Georgia. **local name:** Woodard, Patrick. **locality:** Tifton, Tift County. **remarks:** Protandrous. Nuts large (53/lb). Shell thin. Easy cracker. Seedling. Received at clonal site in 1985. Perennial. Cultivated. Cutting.

PI 517992 to 518145-continued

PI 518145 **origin:** United States. **local name:** Wright, Joe Wright, J. Wright. **locality:** Pascagoula, Jackson County. **remarks:** Protogynous. Nuts large (38/lb). Shell thick. Donated by J. Wright. Received at clonal site in 1983. Perennial. Wild. Cutting.

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 518146 **origin:** United States. **local name:** Lingenfelter. **remarks:** Received at clonal site in 1983. Perennial. Cutting.

PI 518147 **origin:** United States. **local name:** Eureka. **remarks:** Received at clonal site in 1982. Perennial. Cultivated. Cutting.

PI 518148 **origin:** United States. **local name:** Wagner. **remarks:** Received at clonal site in 1982. Perennial. Cutting.

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 518149 **origin:** United States. **local name:** Shinerling. **remarks:** Possibly same as Local 115-29. Received at clonal site in 1967. Perennial. Cutting.

PI 518150 **origin:** United States. **local name:** Schinerling. **remarks:** Possibly same as Local 144-24. Received at clonal site in 1967. Perennial. Cutting.

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 **origin:** United States. **local name:** Greenbox. **remarks:** Received at clonal site in 1983. Perennial. Cutting.

PI 518151 to 518154-continued

PI 518152 **origin:** United States. **local name:** Herold, Harold.  
**remarks:** Probably *C. ovata*. Received at clonal site in 1983. Perennial. Cutting.

PI 518153 **origin:** United States. **local name:** Jones Hybrid.  
**remarks:** Received at clonal site in 1975. Perennial. Cutting.

PI 518154 **origin:** United States. **local name:** Shaul. **remarks:**  
Received at clonal site in 1982. 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.

**origin:** United States. **local name:** Sutton Pecan.  
Perennial. Cutting.

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.

PI 518156 **donor id:** Ch-7501. **origin:** China, Peoples Repub of.  
**remarks:** Root yield high. Sugar content high. **disease resistance:** Leaf spot. Tolerance to root rot. Breeding Material. Seed.

PI 518157 **donor id:** Ch-7504/45. **origin:** China, Peoples Repub of.  
**pedigree:** Selection from hybrid combination. **remarks:** Root and sugar yield high. Sugar content high. Diploid type. **disease resistance:** Leaf spot. Tolerance to root rot. Breeding Material. Seed.

PI 518158 **donor id:** Ch-7805. **origin:** China, Peoples Repub of.  
**remarks:** Root yield high. Sugar content high. Adaptable, triploid type. **disease resistance:** Leaf spot. Breeding Material. Seed.

PI 518159 **donor id:** Ch-780020B. **origin:** China, Peoples Repub of.  
**remarks:** Root yield high. Sugar content high. Diploid, possible backcross type. **disease resistance:** Leaf spot. Tolerance to root rot. Breeding Material. Seed.

PI 518156 to 518163-continued

- PI 518160 **donor id:** Ch-780041B. **origin:** China, Peoples Repub of.  
**remarks:** Root yield high. Sugar content and yield high.  
Diploid, possible backcross type. **disease resistance:**  
Leaf spot and root rot. Breeding Material. Seed.
- PI 518161 **donor id:** Ch-19-120. **origin:** China, Peoples Repub of.  
**remarks:** Inbred. Root yield high. Sugar content high.  
Diploid type. **disease resistance:** Leaf spot. Breeding  
Material. Seed.
- PI 518162 **donor id:** Ch-78318. **origin:** China, Peoples Repub of.  
**remarks:** Root yield high. Sugar content high. Adaptable,  
triploid type. **disease resistance:** Leaf spot. Breeding  
Material. Seed.
- PI 518163 **origin:** China, Peoples Repub of. **origin institute:** Sugar  
Beet Res. Inst.. **origin institute id:** SBR6. **cultivar:**  
Ch-Tianyan No6. **remarks:** Sixth variety of origin  
institute. Sugar content high. Can grow in low areas.  
Diploid type. **disease resistance:** Leaf spot. Tolerance  
to root rot. Cultivar. Seed.

PI 518164 to 518167. *Beta vulgaris* L. CHENOPODIACEAE Sugarbeet

**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 518164 **donor id:** Ch-1. **origin:** China, Peoples Repub of. **origin  
institute:** Jilin Sugar Beet Res. Inst., Chang Chung.  
**origin institute id:** Multigerm (No. 1). Breeding  
Material. Seed.
- PI 518165 **donor id:** Ch-2. **origin:** China, Peoples Repub of. **origin  
institute:** Jilin Sugar Beet Res. Inst., Chang Chung.  
**origin institute id:** Monogerm (No. 2). Breeding  
Material. Seed.
- PI 518166 **donor id:** Ch-4. **origin:** China, Peoples Repub of. **origin  
institute:** Jilin Sugar Beet Res. Inst., Chang Chung.  
**origin institute id:** Monogerm (No. 1). Breeding  
Material. Seed.
- PI 518167 **donor id:** Ch-11. **origin:** China, Peoples Repub of.  
**origin institute:** Jilin Res. Station, Fanjintung. **origin  
institute id:** Multigerm (No. 1). Breeding Material.  
Seed.

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 518168 **donor id:** Ch-3. **origin:** China, Peoples Repub of. **origin institute:** Hohehaote Sugar Beet Res. Inst., Hohehaote. **origin institute id:** Inner Mongolia (No. 3). **Breeding Material.** Seed.

PI 518169 **donor id:** Ch-9a. **origin:** China, Peoples Repub of. **origin institute:** Hohehaote Sugar Beet Res. Inst., Hohehaote. **origin institute id:** Inner Mongolia (No. 9a). **Breeding Material.** Seed.

PI 518170 **donor id:** Ch-9b. **origin:** China, Peoples Repub of. **origin institute:** Hohehaote Sugar Beet Res. Inst., Hohehaote. **origin institute id:** Inner Mongolia (No. 9b). **Breeding Material.** Seed.

PI 518171 to 518242. *Phaseolus vulgaris* L. FABACEAE Garden bean

**Donated by:** Bannerot, H., Sta. de Gen. et d'Amelioration des plant, C.N.R.A., Route de St. Cyr 78000, Versailles, France. **remarks:** Received through F.A. Bliss, Dept. of Horticulture, University of Wisconsin, Madison, Wisconsin. Received January 21, 1988.

PI 518171 **origin:** France. **cultivar:** AIQUILLE VERT.. **remarks:** Small, round, green, snap type (filet, gousse-verte, ronde). **Cultivar.** Seed.

PI 518172 **origin:** France. **cultivar:** ALGER NOIR NAIN. **remarks:** Wax, snap type (filet beurre). **Cultivar.** Seed.

PI 518173 **origin:** France. **cultivar:** BAGNOLAIS NOIR. **remarks:** Green, snap type (filet vert). **Cultivar.** Seed.

PI 518174 **origin:** France. **cultivar:** BEURRE DE CORNE. **remarks:** Wax type (beurre). **Cultivar.** Seed.

PI 518175 **origin:** France. **cultivar:** BEURRE DORE. **remarks:** Wax type (beurre). Seed yellow. **Cultivar.** Seed.

PI 518176 **origin:** France. **cultivar:** BEURRE DORE. **remarks:** Wax type (beurre). Seed black. **Cultivar.** Seed.

PI 518177 **origin:** France. **cultivar:** BEURRE PLEIN LE PANIER. **remarks:** Wax type (beurre). **Cultivar.** Seed.



PI 518171 to 518242-continued

- PI 518178    origin: France.    cultivar: BLANC IDEAL SANS FIL.  
              remarks: Small, snap type (gousse mangetout).    Cultivar.  
              Seed.
- PI 518179    origin: France.    cultivar: BLANC PRECOCE D'ALGER.  
              remarks: Seeds white.    Cultivar.    Seed.
- PI 518180    origin: France.    cultivar: BLANC PRECOCE D'ALGER.  
              remarks: Seeds cream-beige.    Cultivar.    Seed.
- PI 518181    origin: France.    cultivar: CABANAIS.    remarks: Flat,  
              small, snap type (filet gousse plate).    Cultivar.    Seed.
- PI 518182    origin: France.    cultivar: CANIEU.    remarks: Dry type  
              (grain).    Cultivar.    Seed.
- PI 518183    origin: France.    cultivar: CHEVRIER D'ETAMPES.    remarks:  
              Green, dry type (grain vert).    Cultivar.    Seed.
- PI 518184    origin: France.    cultivar: COCO ROSE DE ST. CREPIN.  
              remarks: Round seeded type (grain coco).    Cultivar.  
              Seed.
- PI 518185    origin: France.    cultivar: COCO TOULONNAISE NAIN.  
              remarks: Round seeded type (grain coco).    Cultivar.  
              Seed.
- PI 518186    origin: France.    cultivar: DEUIL FIN PRECOCE.    remarks:  
              Flat, snap type (filet plat).    Cultivar.    Seed.
- PI 518187    origin: France.    cultivar: DROMOIS.    Cultivar.    Seed.
- PI 518188    origin: France.    cultivar: DU BUA.    remarks: Green, snap  
              type (mangetout verte).    Cultivar.    Seed.
- PI 518189    origin: France.    cultivar: EMPEREUR DE RUSSIE.    remarks:  
              Flat, snap type (filet plat).    Cultivar.    Seed.
- PI 518190    origin: France.    cultivar: ENFANT DE MONTCALME.    remarks:  
              Swiss, snap type (mangetout suisse).    Cultivar.    Seed.
- PI 518191    origin: France.    cultivar: ERMITAGE SANS FIL.    remarks:  
              Snap type (mangetout).    Cultivar.    Seed.
- PI 518192    origin: France.    cultivar: EXTRA FIN DU PERREUX.  
              remarks: Flat, snap type (filet plat).    Cultivar.    Seed.
- PI 518193    origin: France.    cultivar: FEVETTE DE ST.LAUD.    remarks:  
              Dry type (grain).    Cultivar.    Seed.
- PI 518194    origin: France.    cultivar: FIN DE BAGNOLS.    remarks:  
              Round, snap type (filet rond).    Cultivar.    Seed.

PI 518171 to 518242-continued

- PI 518195    origin: France.    cultivar: FIN DE MONCLAR.    remarks:  
Round, snap type (filet rond).    Cultivar.    Seed.
- PI 518196    origin: France.    cultivar: FIN DE MONTREUX.    remarks:  
Flat, snap type (filet plat).    Cultivar.    Seed.
- PI 518197    origin: France.    cultivar: FIN DE FINS.    remarks: Snap  
type (filet).    Cultivar.    Seed.
- PI 518198    origin: France.    cultivar: FLAGEOLET BLANC A LONGUE  
COSSE.    remarks: Dry type (grain).    Cultivar.    Seed.
- PI 518199    origin: France.    cultivar: FLAGEOLET BLANC DE VITRY.  
remarks: Dry type (grain).    Cultivar.    Seed.
- PI 518200    origin: France.    cultivar: FLAGEOLET BLANC DU NORD.  
remarks: Dry type (grain).    Cultivar.    Seed.
- PI 518201    origin: France.    cultivar: FLAGEOLET PLEURS.    remarks:  
Dry type (grain flageolet).    Cultivar.    Seed.
- PI 518202    origin: France.    cultivar: GILADEAU.    remarks: Flat, snap  
type (filet plat).    Cultivar.    Seed.
- PI 518203    origin: France.    cultivar: GLOIRE D'AUBAGNE.    remarks:  
Green, snap type (mangetout vert).    Cultivar.    Seed.
- PI 518204    origin: France.    cultivar: GLOIRE DE DEUIL.    remarks:  
Flat, snap type (filet plat).    Cultivar.    Seed.
- PI 518205    origin: France.    cultivar: GLOIRE DE SAUMUR.    remarks:  
Flat, snap type (filet plat).    Cultivar.    Seed.
- PI 518206    origin: France.    cultivar: GLOIRE D'OLLAINVILLE.  
remarks: Wax type (beurre).    Cultivar.    Seed.
- PI 518207    origin: France.    cultivar: GOURMANDON.    Cultivar.    Seed.
- PI 518208    origin: France.    cultivar: LE GRIGNONNAIS.    remarks: Dry  
type (grain).    Cultivar.    Seed.
- PI 518209    origin: France.    cultivar: GRIS DEUIL.    remarks: Flat,  
snap type (filet plat).    Cultivar.    Seed.
- PI 518210    origin: France.    cultivar: INCOMPARABLE HATIF.    remarks:  
Dry type (grain).    Cultivar.    Seed.
- PI 518211    origin: France.    cultivar: JAUNE CENT POUR UN.    remarks:  
Snap type (filet).    Cultivar.    Seed.
- PI 518212    origin: France.    cultivar: JAUNE DE CHALANDRY.    remarks:  
Dry type (grain).    Cultivar.    Seed.

PI 518171 to 518242-continued

- 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 COUNTRY.    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 518230 origin: France. cultivar: TARBAIS. remarks: Dry type (grain). Cultivar. Seed.
- PI 518231 origin: France. cultivar: TRES HATIF DE MASSEY. remarks: Dry type (grain). Cultivar. Seed.
- PI 518232 origin: France. cultivar: TRES HATIF D'ETEMPS. remarks: Dry type (grain). Cultivar. Seed.
- PI 518233 origin: France. cultivar: TRIOMPHE DE FARCY. remarks: Round, snap type (filet rond). Cultivar. Seed.
- PI 518234 origin: France. cultivar: NOIR A ECOSSER DE CHEVILLY. remarks: Dry type (grain, Nain de tous les jour). Cultivar. Seed.
- PI 518235 origin: France. cultivar: LINGOT DE VENDEE. remarks: Dry type (grain). Cultivar. Seed.
- PI 518236 origin: France. cultivar: MARCHE DE GENEVE. remarks: Green, snap type (mangetout vert). Cultivar. Seed.
- PI 518237 origin: France. cultivar: METIS TIGRE ROUGE ET BLANC. remarks: Flat, snap type (filet plat). Cultivar. Seed.
- PI 518238 origin: France. cultivar: PAIMPOLAIS DE GUYADR. remarks: Round seeded type (grain coco). Cultivar. Seed.
- PI 518239 origin: France. cultivar: INEPUISABLE. remarks: Dry type (grain). Cultivar. Seed.
- PI 518240 origin: France. cultivar: TARDIF DE KERFEUTEN. remarks: Snap type (filet plat). Cultivar. Seed.
- PI 518241 origin: France. cultivar: PAIMPOLAIS HERVE. remarks: Round seeded type (grain coco). Cultivar. Seed.
- PI 518242 origin: France. cultivar: PAIMPOLAIS. remarks: Round seeded type (grain coco). Cultivar. Seed.

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 donor id: BOM02. origin: Malawi. local name: Toon pigeon pea. collected: February 22, 1986. collector: J. Ochs. collector id: BOM02. remarks: Donated by G.C. Gail. Cultivated. Seed.

PI 518243 to 518246-continued

- PI 518244 donor id: BOM03. origin: India. local name: Toon pigeon pea. collected: February 24, 1986. collector: J. Ochs. collector id: BOM03. locality: P. Bungi. Cultivated. Seed.
- PI 518245 donor id: DEL10. origin: India. collected: March 01, 1986. collector: J. Ochs. collector id: DEL10. locality: Naya Bazaar, Dehli. Cultivated. Seed.
- PI 518246 donor id: DEL11. origin: India. collected: March 01, 1986. collector: J. Ochs. collector id: DEL11. locality: Naya Bazaar, Dehli. Cultivated. Seed.

PI 518247 to 518260. *Cicer arietinum* L. FABACEAE Chickpea

Donated by: Ochs, J., Eureka Farm, LaCrosse, Washington, United States. Received February 12, 1988.

- PI 518247 donor id: DEL01. origin: India. local name: Desi chana. collected: February 12, 1986. collector: J. Ochs. collector id: DEL01. locality: Naya Bazaar, Dehli. remarks: Originally grown in Madhya Pradesh, India. Cultivated. Seed.
- PI 518248 donor id: DEL02. origin: India. local name: Desi chana. collected: February 12, 1986. collector: J. Ochs. collector id: DEL02. locality: Naya Bazaar, Dehli. remarks: Originally grown in Rajasthan, India. Cultivated. Seed.
- PI 518249 donor id: DEL03. origin: India. local name: Desi chana. collected: February 12, 1986. collector: J. Ochs. collector id: DEL03. locality: Naya Bazaar, Dehli. remarks: Originally grown in Madhya Pradesh, India. Cultivated. Seed.
- PI 518250 donor id: DEL04. origin: India. local name: Kabuli chana. collected: February 12, 1986. collector: J. Ochs. collector id: DEL04. locality: Naya Bazaar, Dehli. remarks: Originally grown in Madhya Pradesh, India. Cultivated. Seed.
- PI 518251 donor id: DEL05. origin: India. local name: Desi chana. collected: February 12, 1986. collector: J. Ochs. collector id: DEL05. locality: Naya Bazaar, Dehli. remarks: Originally from Turkey. Cultivated. Seed.
- PI 518252 donor id: DEL06. origin: India. collected: March 01, 1986. collector: J. Ochs. collector id: DEL06. locality: Naya Bazaar, Dehli. Cultivated. Seed.

PI 518247 to 518260-continued

- PI 518253 donor id: DEL07. origin: India. collected: March 01, 1986. collector: J. Ochs. collector id: DEL07. locality: Naya Bazaar, Dehli. Cultivated. Seed.
- PI 518254 donor id: CAL03. origin: India. local name: Desi chana. collected: February 14, 1986. collector: J. Ochs. collector id: CAL03. locality: Horah Bazaar, Calcutta. remarks: Originally grown in Uttar Pradesh, India. Cultivated. Seed.
- PI 518255 donor id: BOM01. origin: Australia. local name: Tyson chickpea. collected: February 22, 1986. collector: J. Ochs. collector id: BOM01. remarks: Donated by G.C. Gail. Cultivated. Seed.
- PI 518256 donor id: BOM04. origin: India. local name: Kabuli chana. collected: February 24, 1986. collector: J. Ochs. collector id: BOM04. locality: P. Bhanji. Cultivated. Seed.
- PI 518257 donor id: BOM05. origin: India. local name: Desi chana. collected: February 24, 1986. collector: J. Ochs. collector id: BOM05. locality: P. Bhanji. Cultivated. Seed.
- PI 518258 donor id: MAD01. origin: India. local name: Desi chana. collected: February 17, 1986. collector: J. Ochs. collector id: MAD01. locality: Madras. Cultivated. Seed.
- PI 518259 donor id: MAD02. origin: India. local name: Desi chana. collected: February 17, 1986. collector: J. Ochs. collector id: MAD02. locality: Madras. Cultivated. Seed.
- PI 518260 donor id: MAD03. origin: India. local name: Desi chana. collected: February 17, 1986. collector: J. Ochs. collector id: MAD03. locality: Muchus. Cultivated. Seed.

PI 518261. *Lens culinaris* Medikus FABACEAE Lentil

Donated by: Ochs, J., Eureka Farm, LaCrosse, Washington, United States. Received February 12, 1988.

donor id: CAL04. origin: India. local name: Masour lentils. collected: February 14, 1986. collector: J. Ochs. collector id: CAL04. locality: Horah Bazaar, Calcutta. remarks: Originally grown in Madhya Pradesh. Cultivated. Seed.

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 518262 **donor id:** CAL02. **origin:** India. **collected:** February 14, 1986. **collector:** J. Ochs. **collector id:** CAL02. **locality:** Horah Bazaar, Calcutta. **remarks:** Originally grown in Uttar Pradesh. Peas yellow. Cultivated. Seed.

PI 518263 **donor id:** BOM06. **origin:** India. **collected:** February 24, 1986. **collector:** J. Ochs. **collector id:** BOM06. **locality:** P. Bungi. **remarks:** Peas white. Cultivated. Seed.

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 518264 **donor id:** DEL08a. **origin:** India. **collected:** March 01, 1986. **collector:** J. Ochs. **collector id:** DEL08a. **locality:** Naya Bazaar, Dehli. **remarks:** Originally a mixed collection with *V. radiata*. Listed as *Cajanus cajan*. Cultivated. Seed.

PI 518265 **donor id:** DEL09a. **origin:** India. **collected:** March 01, 1986. **collector:** J. Ochs. **collector id:** DEL09a. **locality:** Naya Bazaar, Dehli. **remarks:** Originally a mixed collection with *V. radiata*. Listed as *Cajanus cajan*. Cultivated. Seed.

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 518266 **donor id:** CAL01. **origin:** China, Peoples Repub of. **collected:** February 14, 1986. **collector:** J. Ochs. **collector id:** CAL01. **locality:** Port of Calcutta, India. **remarks:** Introduced through Hong Kong. Cultivated. Seed.

PI 518267 **donor id:** DEL08b. **origin:** India. **collected:** March 01, 1986. **collector:** J. Ochs. **collector id:** DEL08b. **locality:** Naya Bazaar, Dehli. **remarks:** Originally a mixed collection with *V. mungo*. Cultivated. Seed.

PI 518268 **donor id:** DELO9b. **origin:** India. **collected:** March 01, 1986. **collector:** J. Ochs. **collector id:** DELO9b. **locality:** Naya Bazaar, Dehli. **remarks:** Originally a mixed collection with *V. mungo*. Cultivated. Seed.

PI 518266 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

**Donated by:** Ampofo, J.K.O., Internatl. Ctr. of Insect Physio.& Ecol., MPFS, P.O. Box 30, Mbita, South Nyanza, Kenya. Received August 16, 1985.



PI 518274 to 518275-continued

PI 518274 **donor id:** ICZ1-CM. **origin:** Kenya. **pedigree:** Selection from 127 half-sibbed accessions. **other id:** NSL 199024. **other id:** GP-145. **lit. ref.:** Crop Sci. 26:650. 1986. **group:** CSR-MAIZE. **remarks:** Tassel and silk emergence 52-58 days. Days to maturity after sowing 110. Kernels yellow, dent type. Grain yield 4.5 t/ha. Tolerance to stalk damage. **insect resistance:** Ostrinia nubilalis and Diatraea saccharalis. Moderate to stalk borer (Chilo partellus). Breeding Material. Seed.

PI 518275 **donor id:** ICZ2-CM. **origin:** Kenya. **pedigree:** Selection from population no. 27 (Amarillo cristallino-1) after 6 cycles of half-sibbing. **other id:** GP-146. **lit. ref.:** Crop Sci. 26:650. 1986. **group:** CSR-MAIZE. **remarks:** Plants 190cm tall. Tassel and silk emergence 61-65 days. Maturity after sowing 120 days. Kernels flint yellow-orange type. Yield 4.3 t/ha. **insect resistance:** Stalk borer (Chilo partellus). Tolerance to stalk borer (Eldana saccharina). Breeding Material. Seed.

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 518276 **donor id:** LR 283. **origin:** Kenya. **collected:** August 1984. **locality:** Sema, S. Nyanza. **elevation:** 1280m. **remarks:** Kernels white/blue. Multiple aleurone. Mid silk 90 days. Ear height 120cm. **disease resistance:** Rust (0.2 score-0 to 5 scale). Landrace. Seed.

PI 518277 **donor id:** LR 526. **origin:** Kenya. **collected:** August 1984. **locality:** Gihori forest. **elevation:** 62m. **remarks:** Grain white/yellow/blue/red. Multiple aleurone. Mid silk 101 days. Ear height 95cm. **disease resistance:** Moderate to rust (2.0 score-0 to 5 scale). Landrace. Seed.

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 518278 donor id: T-A. origin: Taiwan. collected: September 30, 1986. locality: Yolo River bottom, Chutung, Hsinchu. latitude: 24 deg. 44 min. N. longitude: 121 deg. 05 min. E. Wild. Seed.

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.

donor id: No. 85. origin: Taiwan. remarks: Intermediate between wild and cultivated soybean. Wild. Seed.

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 donor id: Ai Chia Tou. origin: Taiwan. remarks: Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.

PI 518285 donor id: Hei Pai Mei. origin: Taiwan. remarks: Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.

PI 518284 to 518297-continued

- PI 518286 **donor id:** Heng Chun Wu Tou. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.
- PI 518287 **donor id:** Mao 205. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.
- PI 518288 **donor id:** Pai Mei Tou. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.
- PI 518289 **donor id:** Pai Ta Tou. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.
- PI 518290 **donor id:** Ping Tung Chu Tzu Tou. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.
- PI 518291 **donor id:** Ta Lien Tou. **origin:** Taiwan. **remarks:** Originally from Talien, China. Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.
- PI 518292 **donor id:** Tsing Jen Wu Tou. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.
- PI 518293 **donor id:** Tsing Pi Tou. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Landrace. Seed.
- PI 518294 **donor id:** Hua Lien 1. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Cultivar. Seed.
- PI 518295 **donor id:** Kao Hsiung 8. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Cultivar. Seed.
- PI 518296 **donor id:** Kao Hsiung Suan 10. **origin:** Taiwan. **remarks:** Seeds introduced in U.S. in 1986, received at collection October 10, 1987. Cultivar. Seed.
- PI 518297 **donor id:** Tai Ta Kao Hsiung 5. **origin:** Taiwan. **remarks:** Seeds introduced to U.S. in 1986, received at collection October 10, 1987. Cultivar. Seed.

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.

PI 518298 **donor id:** WB 620. **origin:** United Kingdom. **collected:** September 18, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 620. **locality:** Silt soil along sea wall just above mud, Pegwall bay, Kent County. **latitude:** 51 deg. 20 min. N. **longitude:** 1 deg. 20 min. E. **elevation:** 3m. **remarks:** Plants variable, some reverting to vegetative, more than 50 sampled. Wild. Seed.

PI 518299 **donor id:** WB 621. **origin:** United Kingdom. **collected:** September 18, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 621. **locality:** Coarse gravel soil (shingle), Deal, Kent County. **latitude:** 51 deg. 13 min. N. **longitude:** 1 deg. 24 min. E. **elevation:** 3m. **remarks:** Plants variable, more than 50 sampled. Wild. Seed.

PI 518300 **donor id:** WB 622. **origin:** United Kingdom. **collected:** September 18, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 622. **locality:** Shingle and on cliff side, 2km S of Dover, Kent County. **latitude:** 51 deg. 08 min. N. **longitude:** 1 deg. 19 min. E. **elevation:** 3-15m. **remarks:** Plants variable, more than 100 sampled. Wild. Seed.

PI 518301 **donor id:** WB 623. **origin:** United Kingdom. **collected:** September 18, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 623. **locality:** Coarse gravel (shingle), bay, Hythe, Kent County. **latitude:** 51 deg. 04 min. N. **longitude:** 1 deg. 04 min. E. **elevation:** 3m. **remarks:** Plants variable, more than 50 sampled. Wild. Seed.

PI 518302 **donor id:** WB 624. **origin:** United Kingdom. **collected:** September 18, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 624. **locality:** Silt soil, in grass and vacant lot just over man-made sea wall, bay, Greatstone, Kent County. **latitude:** 50 deg. 58 min. N. **longitude:** 0 deg. 58 min. E. **elevation:** 3m. **remarks:** Plants variable, more than 50 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518303 donor id: WB 625. origin: United Kingdom. collected: September 18, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 625. locality: Coarse gravel (shingle), 1.5km E of Camber, East Sussex County. latitude: 50 deg. 56 min. N. longitude: 0 deg. 54 min. E. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518304 donor id: WB 626. origin: United Kingdom. collected: September 18, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 626. locality: Rye Harbour, East Sussex County. latitude: 50 deg. 56 min. N. longitude: 0 deg. 46 min. E. elevation: 3-5m. remarks: Plant highly variable, abundant (more than 100 sampled). Wild. Seed.
- PI 518305 donor id: WB 627. origin: United Kingdom. collected: September 19, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 627. locality: Cliffs, silt and gravel, above harbor and homes, Hastings, East Sussex County. latitude: 50 deg. 52 min. N. longitude: 0 deg. 36 min. E. elevation: 5-10m. remarks: Twenty plants sampled. Wild. Seed.
- PI 518306 donor id: WB 628. origin: United Kingdom. collected: September 19, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 628. locality: Bay, coarse gravel along fence by railroad tracks, Bulverhythe, East Sussex County. latitude: 50 deg. 50 min. N. longitude: 0 deg. 32 min. E. elevation: 3m. remarks: Plants variable, more than 100 sampled. Wild. Seed.
- PI 518307 donor id: WB 629. origin: United Kingdom. collected: September 19, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 629. locality: Bay, Norman's Bay, East Sussex County. latitude: 50 deg. 43 min. N. longitude: 0 deg. 22 min. E. elevation: 3m. remarks: Plants variable, more than 100 sampled. Wild. Seed.
- PI 518308 donor id: WB 630. origin: United Kingdom. collected: September 19, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 630. locality: Coarse gravel (shingle), bay, Seven Sisters, East Sussex. latitude: 50 deg. 37 min. N. longitude: 0 deg. 05 min. E. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518309 donor id: WB 631. origin: United Kingdom. collected: September 19, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 631. locality: Bay, Bishopstone, East Sussex County. latitude: 50 deg. 39 min. N. longitude: 0 deg. 03 min. E. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518310 donor id: WB 632. origin: United Kingdom. collected: September 19, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 632. locality: Bay, Saltdean, East Sussex County. latitude: 50 deg. 48 min. N. longitude: 0 deg. 02 min. W. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518311 donor id: WB 633. origin: United Kingdom. collected: September 19, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 633. locality: Coarse gravel (shingle), harbor, Shoreham, West Sussex County. latitude: 50 deg. 49 min. N. longitude: 0 deg. 15 min. W. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518312 donor id: WB 634. origin: United Kingdom. collected: September 21, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 634. locality: Coarse gravel, beach, Atherington, West Sussex County. latitude: 50 deg. 47 min. N. longitude: 0 deg. 34 min. W. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518313 donor id: WB 635. origin: United Kingdom. collected: September 21, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 635. locality: Coarse gravel, beach, Church Norton, West Sussex County. latitude: 50 deg. 45 min. N. longitude: 0 deg. 46 min. W. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518314 donor id: WB 636. origin: United Kingdom. collected: September 21, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 636. locality: Small population, beach, West Wittering, West Sussex. latitude: 50 deg. 46 min. N. longitude: 0 deg. 55 min. W. elevation: 3m. remarks: Plants variable, more than 20 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518315 **donor id:** WB 637. **origin:** United Kingdom. **collected:** September 21, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 637. **locality:** Along top of stone sea wall, harbor, Prinsted, West Sussex County. **latitude:** 50 deg. 50 min. N. **longitude:** 0 deg. 54 min. W. **elevation:** 3m. **remarks:** Plants variable, more than 50 sampled. Many large plants. Wild. Seed.
- PI 518316 **donor id:** WB 638. **origin:** United Kingdom. **collected:** September 21, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 638. **locality:** Beach, West Town, Hampshire County. **latitude:** 50 deg. 47 min. N. **longitude:** 01 deg. 01 min. W. **elevation:** 3m. **remarks:** Plants variable, more than 50 sampled. Wild. Seed.
- PI 518317 **donor id:** WB 639. **origin:** United Kingdom. **collected:** September 21, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 639. **locality:** Coarse gravel (shingle) just above high tide at Bird Reserve, Hill Head, Hampshire County. **latitude:** 50 deg. 51 min. N. **longitude:** 1 deg. 17 min. W. **elevation:** 3m. **remarks:** Plants variable, more than 100 sampled. Significant variation in pigmentation and height. Wild. Seed.
- PI 518318 **donor id:** WB 640. **origin:** United Kingdom. **collected:** September 21, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 640. **locality:** Beach, South Baddesley, Hampshire County. **latitude:** 50 deg. 48 min. N. **longitude:** 1 deg. 29 min. W. **elevation:** 3m. **remarks:** Small population, five plants sampled. NC7 did not receive seed. Wild. Seed.
- PI 518319 **donor id:** WB 641. **origin:** United Kingdom. **collected:** September 22, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 641. **locality:** Coarse gravel (shingle) over natural sea wall, 1.5km SE of Keyhaven, Hampshire County. **latitude:** 50 deg. 43 min. N. **longitude:** 1 deg. 35 min. W. **elevation:** 3m. **remarks:** Plants uniform, 30 sampled. Wild. Seed.
- PI 518320 **donor id:** WB 642. **origin:** United Kingdom. **collected:** September 22, 1987. **collector:** D.L. Doney & E.D. Whitney. **collector id:** WB 642. **locality:** Hengistbury Head, Dorset County. **latitude:** 50 deg. 43 min. N. **longitude:** 1 deg. 45 min. W. **remarks:** Plants variable, more than 50 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518321 donor id: WB 643. origin: United Kingdom. collected: September 22, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 643. locality: Along cliff walk, Durlston Head, Dorset County. latitude: 50 deg. 34 min. N. longitude: 1 deg. 57 min. W. elevation: 50m. remarks: Plants uniform, eight sampled. Wild. Seed.
- PI 518322 donor id: WB 644. origin: United Kingdom. collected: September 22, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 644. locality: Kimmeridge Bay, Dorset County. latitude: 50 deg. 36 min. N. longitude: 2 deg. 07 min. W. remarks: Plants variable, 20 sampled. Wild. Seed.
- PI 518323 donor id: WB 645. origin: United Kingdom. collected: September 22, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 645. locality: Silt and shale around moat of spring inlet, Lulworth Cove, Dorset County. latitude: 50 deg. 37 min. N. longitude: 2 deg. 15 min. W. elevation: 3m. remarks: Plants variable, small population, 10 sampled. Wild. Seed.
- PI 518324 donor id: WB 646. origin: United Kingdom. collected: September 22, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 646. locality: Overcombe, Dorset County. latitude: 50 deg. 38 min. N. longitude: 2 deg. 26 min. W. elevation: 3m. remarks: Twenty plants sampled. Wild. Seed.
- PI 518325 donor id: WB 647. origin: United Kingdom. collected: September 23, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 647. locality: In large cobbles in old quarry, high above sea level, Bill of Portland, Dorset County. latitude: 50 deg. 31 min. N. longitude: 2 deg. 27 min. W. elevation: 50m. remarks: Plants variable, 30 sampled. Wild. Seed.
- PI 518326 donor id: WB 648. origin: United Kingdom. collected: September 23, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 648. locality: Coarse gravel (shingle), SE end of beach, Chesil, Dorset County. latitude: 50 deg. 35 min. N. longitude: 2 deg. 27 min. W. elevation: 3m. remarks: Plants variable, more than 100 sampled. Wild. Seed.
- PI 518327 donor id: WB 649. origin: United Kingdom. collected: September 23, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 649. locality: At base of castle on beach, 2 km E of West Bexington, Dorset County. latitude: 50 deg. 41 min. N. longitude: 2 deg. 44 min. W. elevation: 3m. remarks: Plants uniform, ten sampled. Wild. Seed.



PI 518298 to 518440-continued

- PI 518328    **donor id:** WB 650.    **origin:** United Kingdom.    **collected:** September 23, 1987.    **collector:** D.L. Doney & E.D. Whitney.    **collector id:** WB 650.    **locality:** At mouth of river, Charmouth, Dorset County.    **latitude:** 50 deg. 44 min. N.    **longitude:** 2 deg. 55 min. W.    **elevation:** 3m.    **remarks:** Ten plants sampled. Wild. Seed.
- PI 518329    **donor id:** WB 651.    **origin:** United Kingdom.    **collected:** September 23, 1987.    **collector:** D.L. Doney & E.D. Whitney.    **collector id:** WB 651.    **locality:** Silt soil, at edge of grass overlooking cliffs at mouth of river just across bridge, beach, Seaton, Devon County.    **latitude:** 50 deg. 42 min. N.    **longitude:** 3 deg. 03 min. W.    **elevation:** 10m.    **remarks:** Fifteen plants sampled. Wild. Seed.
- PI 518330    **donor id:** WB 652.    **origin:** United Kingdom.    **collected:** September 23, 1987.    **collector:** D.L. Doney & E.D. Whitney.    **collector id:** WB 652.    **locality:** Coarse gravel (shingle), beach, Sidmouth, Devon County.    **latitude:** 50 deg. 40 min. N.    **longitude:** 3 deg. 15 min. W.    **elevation:** 3m.    **remarks:** Plants variable, 20 sampled. Wild. Seed.
- PI 518331    **donor id:** WB 653.    **origin:** United Kingdom.    **collected:** September 23, 1987.    **collector:** D.L. Doney & E.D. Whitney.    **collector id:** WB 653.    **locality:** Beach, Bubleigh Salterton, Devon County.    **latitude:** 50 deg. 38 min. N.    **longitude:** 3 deg. 19 min. W.    **elevation:** 3m.    **remarks:** Plants variable, 30 sampled. Wild. Seed.
- PI 518332    **donor id:** WB 654.    **origin:** United Kingdom.    **collected:** September 24, 1987.    **collector:** D.L. Doney & E.D. Whitney.    **collector id:** WB 654.    **locality:** Silt soil, along path leading to sea above sheer cliffs, Dawlish, Devon County.    **latitude:** 50 deg. 35 min. N.    **longitude:** 3 deg. 27 min. W.    **elevation:** 15m.    **remarks:** Plants uniform, 20 sampled. Wild. Seed.
- PI 518333    **donor id:** WB 655.    **origin:** United Kingdom.    **collected:** September 24, 1987.    **collector:** D.L. Doney & E.D. Whitney.    **collector id:** WB 655.    **locality:** Silt soil and cobbles on cliffs above sea, Roundhorn Head, Devon County.    **latitude:** 50 deg. 26 min. N.    **longitude:** 3 deg. 33 min. W.    **elevation:** 20m.    **remarks:** Plants variable, some with large seeds and many germs, 20 sampled. Wild. Seed.

PI 518298 to 518440-continued

- 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 518340 donor id: WB 662. origin: United Kingdom. collected: September 25, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 662. locality: In sand on beach close to cliffs, Carlyn Bay, Cornwall County. latitude: 50 deg. 20 min. N. longitude: 4 deg. 44 min. W. elevation: 3m. remarks: Plants uniform, two small populations, 10 sampled. Wild. Seed.
- PI 518341 donor id: WB 663. origin: United Kingdom. collected: September 25, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 663. locality: At base of cliffs, not on sandy beach, Gerrans Bay, Cornwall County. latitude: 50 deg. 12 min. N. longitude: 4 deg. 57 min. W. elevation: 5m. remarks: Plants uniform, 50 sampled. Wild. Seed.
- PI 518342 donor id: WB 664. origin: United Kingdom. collected: September 25, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 664. locality: In cobbles on cliffs at lookout, Lizzard Point, Cornwall County. latitude: 49 deg. 58 min. N. longitude: 5 deg. 11 min. W. elevation: 50m. remarks: Plants variable, procumbent, more than 50 sampled. Wild. Seed.
- PI 518343 donor id: WB 665. origin: United Kingdom. collected: September 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 665. locality: In cobbles at mouth of cove, 1 km W of Gunwalloe, Cornwall County. latitude: 50 deg. 04 min. N. longitude: 5 deg. 17 min. W. elevation: 3m. remarks: Forty plants sampled. Wild. Seed.
- PI 518344 donor id: WB 666. origin: United Kingdom. collected: September 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 666. locality: Silt soil and cobbles on cliffs overlooking sea, where rabbits had not eaten, Lands End, Cornwall County. latitude: 50 deg. 05 min. N. longitude: 5 deg. 42 min. W. elevation: 50m. remarks: Forty plants sampled. Wild. Seed.
- PI 518345 donor id: WB 667. origin: United Kingdom. collected: September 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 667. locality: North of estuary, 4km E of St. Ives, Cornwall County. latitude: 50 deg. 13 min. N. longitude: 5 deg. 26 min. W. elevation: 3m. remarks: Plants variable, mixed, some appeared outcrossed with fodder types, 20 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518346 donor id: WB 668. origin: United Kingdom. collected: September 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 668. locality: In cobbles around parking area, 1 km W of Porthtowan, Cornwall County. latitude: 50 deg. 17 min. N. longitude: 5 deg. 15 min. W. elevation: 5m. remarks: Plants variable, mixed, 10 sampled. Wild. Seed.
- PI 518347 donor id: WB 669. origin: United Kingdom. collected: September 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 669. locality: Sandy soil where cliffs begin, 1 km N of Newquay, Cornwall County. latitude: 50 deg. 25 min. N. longitude: 5 deg. 03 min. W. elevation: 3m. remarks: Plants variable, 10 sampled. Wild. Seed.
- PI 518348 donor id: WB 670. origin: United Kingdom. collected: September 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 670. locality: On edge of beach and start of sand dunes, Harlyn Bay, Cornwall County. latitude: 50 deg. 35 min. N. longitude: 5 deg. 02 min. W. elevation: 3m. remarks: Plants variable, 10 sampled. Seeds and seed balls large. Wild. Seed.
- PI 518349 donor id: WB 671. origin: United Kingdom. collected: September 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 671. locality: Cove, south-facing cliffs, Port William, Cornwall County. latitude: 50 deg. 39 min. N. longitude: 4 deg. 46 min. W. elevation: 10m. remarks: Plants variable, 10 sampled. Population small. Seeds and seed balls large. Wild. Seed.
- PI 518350 donor id: WB 672. origin: United Kingdom. collected: September 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 672. locality: Sandy beach, Wide Mouth Bay, Cornwall County. latitude: 50 deg. 47 min. N. longitude: 4 deg. 33 min. W. elevation: 10m. remarks: Ten plants sampled. Population small. Wild. Seed.
- PI 518351 donor id: WB 673. origin: United Kingdom. collected: September 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 673. locality: Fine gravel soil on beach, Westward Ho, Devon County. latitude: 51 deg. 02 min. N. longitude: 4 deg. 16 min. W. elevation: 3m. remarks: Few plants, variable, 10 sampled. Area not grazed by sheep. Wild. Seed.

PI 518298 to 518440-continued

- PI 518352 donor id: WB 674. origin: United Kingdom. collected: September 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 674. locality: Fine gravel soil in undisturbed areas above high tide in harbor around fishing boats, Combe Martin Bay, Devon County. latitude: 51 deg. 08 min. N. longitude: 4 deg. 02 min. W. elevation: 5m. remarks: Plants variable, 20 sampled. Wild. Seed.
- PI 518353 donor id: WB 675. origin: United Kingdom. collected: September 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 675. locality: Harbor, above high tide, around fishing boats, Porlock Bay, Somerset County. latitude: 51 deg. 13 min. N. longitude: 3 deg. 37 min. W. elevation: 5m. remarks: Plants variable, 20 sampled. Wild. Seed.
- PI 518354 donor id: WB 676. origin: United Kingdom. collected: September 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 676. locality: Coarse gravel (shingle), E of beach, Blue Anchor Bay, Somerset County. latitude: 51 deg. 12 min. N. longitude: 3 deg. 24 min. W. elevation: 3m. remarks: Plants variable, more than 50 sampled. Large population between high tide and grass. Wild. Seed.
- PI 518355 donor id: WB 677. origin: United Kingdom. collected: September 29, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 677. locality: Sand cliffs at end of beach, 3.5km N of Weston sand point, Avon County. latitude: 51 deg. 23 min. N. longitude: 2 deg. 59 min. W. elevation: 3m. remarks: Plants variable, 15 sampled. One fine-leaf variate. Wild. Seed.
- PI 518356 donor id: WB 678. origin: United Kingdom. collected: September 29, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 678. locality: Fine gravel beach at high tide, quite marshy, Portishead, Avon County. latitude: 51 deg. 29 min. N. longitude: 2 deg. 47 min. W. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518357 donor id: WB 679. origin: United Kingdom. collected: September 29, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 679. locality: Marshy beach above high tide, Severn Beach, Avon County. latitude: 51 deg. 33 min. N. longitude: 2 deg. 41 min. W. elevation: 3m. remarks: Plants variable, more than 50 sampled. Wild. Seed.

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

- PI 518364 donor id: WB 686. origin: United Kingdom. collected: October 1, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 686. locality: In cliffs at edge of beach, Dale, Dyfed County. latitude: 51 deg. 42 min. N. longitude: 5 deg. 10 min. W. elevation: 5m. remarks: Plants variable, 30 sampled. Wild. Seed.
- PI 518365 donor id: WB 687. origin: United Kingdom. collected: October 1, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 687. locality: On beach at base of cliffs at edge of sand, Martins's Haven, Dyfed County. latitude: 51 deg. 44 min. N. longitude: 5 deg. 15 min. W. elevation: 5m. remarks: Plants variable, 10 sampled. Wild. Seed.
- PI 518366 donor id: WB 688. origin: United Kingdom. collected: October 1, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 688. locality: Cobbles, in boulders at base of cliffs at edge of beach, 1 km SE of St. Davids Head, Dyfed County. latitude: 51 deg. 54 min. N. longitude: 5 deg. 18 min. W. elevation: 5m. remarks: Plants variable, 30 sampled. Wild. Seed.
- PI 518367 donor id: WB 689. origin: United Kingdom. collected: October 1, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 689. locality: On road, sandy soil, at edge of beach, 2km N of Dinas, Dyfed County. latitude: 52 deg. 01 min. N. longitude: 4 deg. 55 min. W. elevation: 5m. remarks: Plants variable, 15 sampled. Some plants looked outcrossed, small population. Wild. Seed.
- PI 518368 donor id: WB 690. origin: United Kingdom. collected: October 3, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 690. locality: Coarse gravel (shingle), 1km SW of Port Dinorwie, Gwynedd County. latitude: 53 deg. 01 min. N. longitude: 4 deg. 14 min. W. elevation: 3m. remarks: Plants variable, large with big leaves, 30 sampled. Wild. Seed.
- PI 518369 donor id: WB 691. origin: United Kingdom. collected: October 3, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 691. locality: Coarse gravel on beach side of railroad tracks where overhead walk crosses highway, 1 km N of Dwygyfychi, Gwynedd County. latitude: 53 deg. 17 min. N. longitude: 3 deg. 54 min. W. elevation: 3m. remarks: Plants variable, 15 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518370 donor id: WB 692. origin: United Kingdom. collected: October 3, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 692. locality: Coarse gravel (shingle) on beach, Ormes Bay, Gwynedd County. latitude: 53 deg. 19 min. N. longitude: 3 deg. 47 min. W. elevation: 3m. remarks: Plants variable, large, 15 sampled. Population small. Wild. Seed.
- PI 518371 donor id: WB 693. origin: United Kingdom. collected: October 5, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 693. locality: On beach, in mud and gravel just above high tide, Talacre, Clwyd County. latitude: 53 deg. 21 min. N. longitude: 3 deg. 19 min. W. elevation: 3m. remarks: Plants variable, large, 50 sampled. Population large. Wild. Seed.
- PI 518372 donor id: WB 694. origin: United Kingdom. collected: October 5, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 694. locality: Coarse gravel (shingle) above high tide around fishing boats in harbor, Beaumaris, Anglesey County. latitude: 53 deg. 15 min. N. longitude: 4 deg. 06 min. W. elevation: 5m. remarks: Plants large and erect, 40 sampled. Wild. Seed.
- PI 518373 donor id: WB 695. origin: United Kingdom. collected: October 5, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 695. locality: Coarse gravel (shingle) on beach, Penmon, Anglesey County. latitude: 53 deg. 18 min. N. longitude: 4 deg. 03 min. W. elevation: 3m. remarks: Plants large, 25 sampled. Wild. Seed.
- PI 518374 donor id: WB 696. origin: United Kingdom. collected: October 5, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 696. locality: On beach in grass, but underlain with gravel, Cemlyn Bay, Anglesey County. latitude: 53 deg. 24 min. N. longitude: 4 deg. 31 min. W. elevation: 3m. remarks: Plants variable, 40 sampled. Wild. Seed.
- PI 518375 donor id: WB 697. origin: United Kingdom. collected: October 5, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 697. locality: Cobbles in large boulders of ferry car park, Harbor, Holyhead, Anglesey County. latitude: 53 deg. 19 min. N. longitude: 4 deg. 39 min. W. elevation: 5m. remarks: Twenty plants sampled. Wild. Seed.



PI 518298 to 518440-continued

- PI 518376 donor id: WB 698. origin: Ireland. collected: October 6, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 698. locality: Along stone sea wall in harbor, Malahide, Dublin County. latitude: 53 deg. 27 min. N. longitude: 6 deg. 09 min. W. elevation: 5m. remarks: Twenty plants sampled. Wild. Seed.
- PI 518377 donor id: WB 699. origin: Ireland. collected: October 6, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 699. locality: Coarse gravel along mouth of river outlet to sea in harbor, Laytown, Meath County. latitude: 53 deg. 40 min. N. longitude: 6 deg. 14 min. W. elevation: 3m. remarks: Plants variable, large, 30 sampled. Wild. Seed.
- PI 518378 donor id: WB 700. origin: Ireland. collected: October 6, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 700. locality: Cobbles in large boulders along railroad track, Six Mile Point, Wicklow County. latitude: 53 deg. 04 min. N. longitude: 6 deg. 04 min. W. elevation: 5m. remarks: Plants variable, 15 sampled. Wild. Seed.
- PI 518379 donor id: WB 701. origin: Ireland. collected: October 6, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518380 donor id: WB 702. origin: Ireland. collected: October 7, 1987. collector: D.L. Doney & E.D. Whitney. 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 518381 donor id: WB 703. origin: Ireland. collected: October 7, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 703. locality: Coarse sand, 2km S of Duncormick, Wexford County. latitude: 52 deg. 11 min. N. longitude: 6 deg. 38 min. W. elevation: 5m. remarks: Plants variable, 30 sampled. Wild. Seed.
- PI 518382 donor id: WB 704. origin: Ireland. collected: October 7, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 704. locality: In sand dunes on beach, Duncannon, Wexford County. latitude: 52 deg. 13 min. N. longitude: 6 deg. 56 min. W. elevation: 5m. remarks: Few plants, 8 sampled. Wild. Seed.

PI 518298 to 518440-continued

- 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 Baginbun 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.
- PI 518384 donor id: WB 706. origin: Ireland. collected: October 7, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 706. locality: On beach in sand-gravel dunes, Kilmore Quay, Wexford County. latitude: 52 deg. 09 min. N. longitude: 6 deg. 35 min. W. elevation: 8m. remarks: Plants variable, procumbent, very large (1.8m diameter), vigorous. More than 50 plants sampled. Wild. Seed.
- PI 518385 donor id: WB 707. origin: Ireland. collected: October 8, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 707. locality: On beach in sand, Woodstown Ho, Waterford County. latitude: 52 deg. 11 min. N. longitude: 6 deg. 59 min. W. elevation: 5m. remarks: Plants variable, 10 sampled. Wild. Seed.
- PI 518386 donor id: WB 708. origin: Ireland. collected: October 8, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 708. locality: In cliffs on beach, Dunmore East, Waterford County. latitude: 52 deg. 08 min. N. longitude: 7 deg. 00 min. W. elevation: 5m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518387 donor id: WB 709. origin: Ireland. collected: October 8, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 709. locality: In gravel on beach, Tramore, Waterford County. latitude: 52 deg. 08 min. N. longitude: 7 deg. 09 min. W. elevation: 5m. remarks: Plants variable, more than 50 sampled. Wild. Seed.
- PI 518388 donor id: WB 710. origin: Ireland. collected: October 8, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 710. locality: On sandy beach, Bunmahon, Waterford County. latitude: 52 deg. 08 min. N. longitude: 7 deg. 24 min. W. elevation: 5m. remarks: Plants variable, 30 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518389 donor id: WB 711. origin: Ireland. collected: October 8, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518390 donor id: WB 712. origin: Ireland. collected: October 9, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518391 donor id: WB 713. origin: Ireland. collected: October 9, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 713. locality: On sand-gravel beach, Youghal, Cork County. latitude: 51 deg. 56 min. N. longitude: 7 deg. 51 min. W. elevation: 3m. remarks: Few scattered plants, 15 sampled. Wild. Seed.
- PI 518392 donor id: WB 714. origin: Ireland. collected: October 9, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518393 donor id: WB 715. origin: Ireland. collected: October 9, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518394 donor id: WB 716. origin: Ireland. collected: October 9, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 716. locality: Stone sea wall in harbor, Flexfort Ho, Cork County. latitude: 51 deg. 39 min. N. longitude: 8 deg. 42 min. W. elevation: 3m. remarks: Population of two plants sampled. Wild. Seed.
- PI 518395 donor id: WB 717. origin: Ireland. collected: October 9, 1987. collector: D.L. Doney & E.D. Whitney. 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

- PI 518396 donor id: WB 718. origin: Ireland. collected: October 9, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 718. locality: Above high tide on stone sea wall in harbor, Inchydoney Isle, Cork County. latitude: 51 deg. 36 min. N. longitude: 8 deg. 52 min. W. elevation: 3m. remarks: Plants variable, abundant, 30 sampled. Wild. Seed.
- PI 518397 donor id: WB 719. origin: Ireland. collected: October 12, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 719. locality: Harbor, gravel soil, Inch, Kerry County. latitude: 52 deg. 09 min. N. longitude: 9 deg. 57 min. W. elevation: 5m. remarks: Only four plants, 2 sampled. NC7 did not receive seed. Wild. Seed.
- PI 518398 donor id: WB 720. origin: Ireland. collected: October 12, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 720. locality: Harbor, coarse gravel soil, Dingle, Kerry County. latitude: 52 deg. 10 min. N. longitude: 10 deg. 15 min. W. elevation: 5m. remarks: One plant with unusual inflorescence. Wild. Seed.
- PI 518399 donor id: WB 721. origin: Ireland. collected: October 12, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 721. locality: Coarse gravel, harbor, Ventry, Kerry County. latitude: 52 deg. 07 min. N. longitude: 10 deg. 20 min. W. elevation: 3m. remarks: Plants abundant, more than 50 sampled. Wild. Seed.
- PI 518400 donor id: WB 722. origin: Ireland. collected: October 12, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 722. locality: Coarse gravel, in shingle at north end of beach, Fahomore, Kerry County. latitude: 52 deg. 19 min. N. longitude: 10 deg. 03 min. W. elevation: 3m. remarks: Thirty plants sampled. Wild. Seed.
- PI 518401 donor id: WB 723. origin: Ireland. collected: October 12, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 723. locality: Uniform soil in and around base of pier, Fenit, Kerry County. latitude: 52 deg. 15 min. N. longitude: 9 deg. 52 min. W. elevation: 3m. remarks: Twenty plants sampled. Wild. Seed.
- PI 518402 donor id: WB 724. origin: Ireland. collected: October 13, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 724. locality: Coarse gravel on beach, Ballyheige, Kerry County. latitude: 52 deg. 23 min. N. longitude: 9 deg. 51 min. W. elevation: 3m. remarks: Plants variable, abundant, 60 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518403 donor id: WB 725. origin: Ireland. collected: October 13, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518404 donor id: WB 726. origin: Ireland. collected: October 13, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518405 donor id: WB 727. origin: Ireland. collected: October 13, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518406 donor id: WB 728. origin: Ireland. collected: October 13, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518407 donor id: WB 729. origin: Ireland. collected: October 14, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518408 donor id: WB 730. origin: Ireland. collected: October 14, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 730. locality: In cobbles on beach in boulders, Caher, Galway 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

- PI 518409 donor id: WB 731. origin: Ireland. collected: October 15, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 731. locality: Coarse gravel on beach, Saleen Harbor, Mayo County. latitude: 54 deg. 11 min. N. longitude: 10 deg. 03 min. W. elevation: 3m. remarks: Plants very different, highly prostrate, 8 sampled. Leaves round, thick, some with white specks. Wild. Seed.
- PI 518410 donor id: WB 732. origin: Ireland. collected: October 15, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 732. locality: Coarse gravel on beach, Elly Harbor, Mayo County. latitude: 54 deg. 09 min. N. longitude: 10 deg. 05 min. W. elevation: 3m. remarks: Very few plants, 5 sampled. Similar to PI 518409 in appearance. NC7 did not receive seed. Wild. Seed.
- PI 518411 donor id: WB 733. origin: Ireland. collected: October 15, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 733. locality: Coarse gravel and cobbles in and around harbor, Rosses Point, Sligo County. latitude: 54 deg. 18 min. N. longitude: 9 deg. 35 min. W. elevation: 5m. remarks: Plants erect, small but abundant, 10 sampled. Wild. Seed.
- PI 518412 donor id: WB 734. origin: Ireland. collected: October 17, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 734. locality: Coarse gravel on beach, Kilclief, Down County. latitude: 54 deg. 20 min. N. longitude: 5 deg. 32 min. W. elevation: 3m. remarks: Twenty plants sampled. Wild. Seed.
- PI 518413 donor id: WB 735. origin: Ireland. collected: October 17, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 735. locality: Coarse gravel on beach, Ardglass, Down County. latitude: 54 deg. 15 min. N. longitude: 5 deg. 36 min. W. elevation: 3m. remarks: Plants abundant, erect and large, more than 50 sampled. Wild. Seed.
- PI 518414 donor id: WB 736. origin: Ireland. collected: October 17, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 736. locality: Coarse gravel on beach, Minerstown, Down County. latitude: 54 deg. 14 min. N. longitude: 5 deg. 42 min. W. elevation: 3m. remarks: Plants variable, abundant, segregating for erect and prostrate habit and for stem pigmentation, more than 100 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518415 donor id: WB 737. origin: Ireland. collected: October 17, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518416 donor id: WB 738. origin: Ireland. collected: October 17, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518417 donor id: WB 739. origin: Ireland. collected: October 17, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518418 donor id: WB 740. origin: Ireland. collected: October 17, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518419 donor id: WB 741. origin: Ireland. collected: October 17, 1987. collector: D.L. Doney & E.D. Whitney. 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.
- PI 518420 donor id: WB 742. origin: United Kingdom. collected: October 20, 1987. collector: D.L. Doney & E.D. Whitney. 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.

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

- PI 518427 donor id: WB 749. origin: United Kingdom. collected: October 24, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 749. locality: In coarse gravel on beach, Dunwich, Suffolk County. latitude: 52 deg. 16 min. N. longitude: 1 deg. 39 min. E. elevation: 3m. remarks: Plants few, uniform, 10 sampled. Wild. Seed.
- PI 518428 donor id: WB 750. origin: United Kingdom. collected: October 24, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 750. locality: In coarse gravel on beach, Thorpeness, Suffolk County. latitude: 52 deg. 10 min. N. longitude: 1 deg. 36 min. E. elevation: 3m. remarks: Large population, wind damage, 20 sampled. Wild. Seed.
- PI 518429 donor id: WB 751. origin: United Kingdom. collected: October 25, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 751. locality: In coarse gravel, 2km SE of Hollesley, Suffolk County. latitude: 52 deg. 01 min. N. longitude: 1 deg. 27 min. E. elevation: 3m. remarks: Plants variable, abundant, severe wind damage, 40 sampled. Wild. Seed.
- PI 518430 donor id: WB 752. origin: United Kingdom. collected: October 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 752. locality: In coarse gravel, harbor, mouth of river, 1 km SW of Flexstone, Suffolk County. latitude: 51 deg. 56 min. N. longitude: 1 deg. 20 min. E. elevation: 5m. remarks: Few plants in protected area. Plants uniform, 15 sampled. Wild. Seed.
- PI 518431 donor id: WB 753. origin: United Kingdom. collected: October 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 753. locality: Coarse sand on beach, Seawick, Essex County. latitude: 51 deg. 46 min. N. longitude: 1 deg. 05 min. E. elevation: 5m. remarks: Large population, wind damage, 50 sampled. Wild. Seed.
- PI 518432 donor id: WB 754. origin: United Kingdom. collected: October 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 754. locality: Stones and mud along sea wall of Harbor, West Mersea, Essex County. latitude: 51 deg. 46 min. N. longitude: 0 deg. 54 min. E. elevation: 5m. remarks: Large population, wind damage, 25 sampled. Wild. Seed.

PI 518298 to 518440-continued

- PI 518433 donor id: WB 755. origin: United Kingdom. collected: October 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 755. locality: Coarse gravel on beach, Bradwell, Essex County. latitude: 51 deg. 44 min. N. longitude: 0 deg. 52 min. E. elevation: 3-5m. remarks: Large population, wind damage, 35 sampled. Wild. Seed.
- PI 518434 donor id: WB 756. origin: United Kingdom. collected: October 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 756. locality: Silt and gravel along boat dock, Burnham, Essex County. latitude: 51 deg. 37 min. N. longitude: 0 deg. 49 min. E. elevation: 3-5m. remarks: Plants with wind damage, 20 sampled. Wild. Seed.
- PI 518435 donor id: WB 757. origin: United Kingdom. collected: October 26, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 757. locality: Fine gravel on beach, Shoebury Ness, Essex County. latitude: 51 deg. 31 min. N. longitude: 0 deg. 47 min. E. elevation: 3m. remarks: Small population, few seed, wind damage, 3 sampled. NC7 did not receive seed. Wild. Seed.
- PI 518436 donor id: WB 758. origin: United Kingdom. collected: October 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 758. locality: Gravel and silt on cliffs and at base of cliffs, Margate, Kent County. latitude: 51 deg. 24 min. N. longitude: 1 deg. 23 min. E. elevation: 5-20m. remarks: Thirty plants sampled. Wild. Seed.
- PI 518437 donor id: WB 759. origin: United Kingdom. collected: October 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 759. locality: Gravel and silt soil over sea wall and in vacant lot, Reculver, Kent County. latitude: 51 deg. 24 min. N. longitude: 1 deg. 10 min. E. elevation: 10m. remarks: Plants large, erect, abundant, 50 sampled. Wild. Seed.
- PI 518438 donor id: WB 760. origin: United Kingdom. collected: October 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 760. locality: Coarse gravel over sea wall on beach, Sea Salter, Kent County. latitude: 51 deg. 22 min. N. longitude: 0 deg. 59 min. E. elevation: 5m. remarks: Plants abundant, more than 50 sampled. Wild. Seed.

PI 518298 to 518440-continued

PI 518439 donor id: WB 761. origin: United Kingdom. collected: October 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 761. locality: Coarse gravel over sea wall on beach, Sheerness, Kent County. latitude: 51 deg. 26 min. N. longitude: 0 deg. 47 min. E. elevation: 5m. remarks: Plants variable, less erect and more maritima-like, 50 sampled. Wild. Seed.

PI 518440 donor id: WB 762. origin: United Kingdom. collected: October 28, 1987. collector: D.L. Doney & E.D. Whitney. collector id: WB 762. locality: Coarse gravel on beach, Allhallows, Kent County. latitude: 51 deg. 28 min. N. longitude: 0 deg. 39 min. E. elevation: 5m. remarks: Plants variable, large, erect, more than 50 sampled. Wild. Seed.

PI 518441 to 518442. *Chenopodium quinoa* Willd. CHENOPODIACEAE Quinoa

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 518441 donor id: 870603-12. origin: Peru. collected: June 03, 1987. collector: W.J. Kaiser. collector id: 870603-12. locality: Mountains of southern Peru. elevation: >3000m. remarks: Seeds white, used for food. Seed obtained from Manuel Rendon Velazquez, SIA, Seville, Spain. Landrace. Seed.

PI 518442 donor id: 870603-13. origin: Peru. collected: June 03, 1987. collector: W.J. Kaiser. collector id: 870603-13. locality: Mountains of southern Peru. elevation: >3000m. remarks: Seeds black. Seed obtained from Manuel Rendon Velazquez, SIA, Seville, Spain. Landrace. Seed.

PI 518443. *Coronilla scorpioides* (L.) Koch 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.

donor id: 870527-14. origin: Spain. local name: Alacranera. collected: May 27, 1987. collector: W.J. Kaiser. collector id: 870527-14. locality: Roadside near chickpea field on road from Jerez de la Frontera to Trebujina, Cadiz Province. remarks: Plant prostrate. Pods segmented, small, curled, and borne on an extended peduncle. Wild. Seed.

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.

donor id: 870604-01. origin: Spain. local name: Piel de Sapo. collected: June 04, 1987. collector: W.J. Kaiser. collector id: 870604-01. locality: Seeds obtained by J.L. Trapero from Montilla, Cordoba Province. elevation: 300m. remarks: Melon oblong from 0.5 to 4.5kg. Skin green. Flesh sweet, clear. Cultivated. Seed.

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 518445 donor id: 870527-12. origin: Spain. local name: Zulla. collected: May 27, 1987. collector: W.J. Kaiser. collector id: 870527-12. locality: Ditch near a chickpea field near Jerez de la Frontera, Cadiz Province. elevation: 35m. remarks: Flowers scarlet-red. Wild. Seed.

PI 518446 donor id: 870603-09. origin: Spain. local name: Zulla. collected: June 03, 1987. collector: W.J. Kaiser. collector id: 870603-09. locality: Cortijo Tomejil Expt. Station for Servicio de Investigaciones Agrarias between Carmona and Marchena. Cultivated. Seed.

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.

donor id: 870527-15. origin: Spain. local name: Corona de Rey. collected: May 27, 1987. collector: W.J. Kaiser. collector id: 870527-15. locality: Roadside near a chickpea field on road from Jerez de la Frontera to Trebujena, Cadiz Province. remarks: Plant prostrate. Pods small, straight. Wild. Seed.

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

donor id: 870527-13. origin: Spain. local name: Lengua de Obeja. collected: May 27, 1987. collector: W.J. Kaiser. collector id: 870527-13. locality: Roadside near a chickpea field on road from Jerez de la Frontera to Trebujena, Cadiz Province. elevation: 35m. remarks: Plant prostrate. Pods spiny, narrow, curled, borne on a stalk. received as: *S. sulcatus*. Wild. Seed.

PI 518449. *Trifolium campestre* Schreber FABACEAE Large hop clover

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: 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

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: 870522-02. origin: Spain. collected: May 22, 1987. collector: W.J. Kaiser. collector id: 870522-02. locality: Wet area along road near Escuela Tecnica Superior de Ingenieros Agronomos, Cordoba, Cordoba Province. elevation: 120m. remarks: Flowers white. Perennial. Wild. Seed.

PI 518451. *Trifolium scabrum* L. FABACEAE Rough clover

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: 870527-16. origin: Spain. collected: May 27, 1987. collector: W.J. Kaiser. collector id: 870527-16. locality: Roadside near chickpea field on road from Jerez de la Frontera to Trebujena, Cadiz Province. elevation: 120m. remarks: Plant small. Flowers spiny. Annual. Wild. Seed.

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 518454 to 518469-continued

- PI 518457 donor id: 870601-94. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 170. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-94. Wild. Seed.
- PI 518458 donor id: 870601-95. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 171. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-95. locality: Malaga. Wild. Seed.
- PI 518459 donor id: 870601-96. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 175. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-96. locality: Archidora, Malaga. Wild. Seed.
- PI 518460 donor id: 870601-97. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 177. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-97. locality: Cuenca. Wild. Seed.
- PI 518461 donor id: 870601-98. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 178. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-98. locality: Granada. Wild. Seed.
- PI 518462 donor id: 870601-99. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 184. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-99. locality: Jaen. Wild. Seed.
- PI 518463 donor id: 870601-100. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 185. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-100. Wild. Seed.
- PI 518464 donor id: 870601-101. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 186. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-101. locality: Granada. Wild. Seed.
- PI 518465 donor id: 870601-102. origin: Spain. origin institute: Servicio de Invest. Agrarias, Cordoba. origin institute id: No. 189. collected: June 01, 1987. collector: W.J. Kaiser. collector id: 870601-102. Wild. Seed.

PI 518454 to 518469-continued

- PI 518466 donor id: 870605-02. origin: Spain. collected: June 05, 1987. collector: W.J. Kaiser. collector id: 870601-02. other id: B-730. locality: Near a wheat field, Finca El Encin at Alcala de Henares, about 30km from Madrid. Wild. Seed.
- PI 518467 donor id: 870608-05. origin: Spain. local name: Yeros. collected: June 08, 1987. collector: W.J. Kaiser. collector id: 870608-05. locality: Cuenca and Albacete Provinces. remarks: Obtained from Gregoria Fernandez Bailon, Extension Agent, Tarancon, Cuenca Province. Cultivar. Seed.
- PI 518468 donor id: 870608-09. origin: Spain. collected: June 08, 1987. collector: W.J. Kaiser. collector id: 870608-09. locality: Commercial planting of Javier Fernandez Frale, Tarancon, Cuenca Province. elevation: 500m. remarks: Obtained from Gregoria Fernandez Bailon, Extension Agent, Tarancon, Cuenca Province. Cultivar. Seed.
- PI 518469 donor id: 870608-18. origin: Spain. collected: June 08, 1987. collector: W.J. Kaiser. collector id: 870608-18. locality: Seeds from several plants in a planting of Lathyrus cicera near Saelices, Cuenca Province. remarks: Obtained from Gregoria Fernandez Bailon, Extension Agent, Tarancon, Cuenca Province. Wild. Seed.

PI 518470 to 518471. *Vicia narbonensis* L. FABACEAE Narbonne 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 518470 donor id: 870608-06. origin: Spain. local name: Veza narbonensis. collected: June 08, 1987. collector: W.J. Kaiser. collector id: 870608-06. locality: Obtained from Gregorio Fernandez Bailou, Extension Agent, Tarancon, Cuenca Province. remarks: Obtained from Gregoria Fernandez Bailon, Extension Agent, Tarancon, Cuenca Province. Cultivar. Seed.
- PI 518471 donor id: 870608-20. origin: Spain. collected: June 08, 1987. collector: W.J. Kaiser. collector id: 870608-20. locality: Commercial planting near Almendros, Cuenca Province. remarks: Obtained from Gregoria Fernandez Bailon, Extension Agent, Tarancon, Cuenca Province. Cultivar. Seed.



PI 518472. *Zea mays* L. POACEAE Corn

**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:** 870603-14. **origin:** Peru. **local name:** Chicha.  
**collected:** June 03, 1987. **collector:** W.J. Kaiser.  
**collector id:** 870603-14. **locality:** Mountains of southern Peru. **remarks:** Seeds purple-black, used to make alcoholic drink called "Chicha". Seed obtained from Manuel Rendon Velazquez, SIA, Seville, Spain. Landrace. Seed.

PI 518473 to 518480. *Ipomoea batatas* (L.) Lam. CONVOLVULACEAE Sweet potato

**Donated by:** Austin, D.F., Dept. Biological Services, Florida Atlantic University, Boca Raton, Florida, United States. Received October 27, 1987.

PI 518473 **donor id:** DLP 2907. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2907.  
**locality:** 2km N of Playa Norte, Veracruz Province.  
**latitude:** 19 deg. 10 min. N. **longitude:** 96 deg. 10 min. W. **elevation:** 10m. Wild. Seed.

PI 518474 **donor id:** DLP 2908. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2908.  
**locality:** 1 km N of Playa Norte, Veracruz Province.  
**latitude:** 19 deg. 12 min. N. **longitude:** 96 deg. 10 min. W. **elevation:** 15m. Wild. Seed.

PI 518475 **donor id:** DLP 2914. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2914.  
**locality:** 20km N of Antigua Cardel, Antigua Province.  
**latitude:** 19 deg. 25 min. N. **longitude:** 96 deg. 25 min. W. **elevation:** 80m. Wild. Seed.

PI 518476 **donor id:** DLP 2915. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2915.  
**locality:** 12km W of Paso Del Toro, Medellin Province.  
**latitude:** 19 deg. 27 min. N. **longitude:** 96 deg. 26 min. W. **elevation:** 100m. Wild. Seed.

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 518473 to 518480-continued

PI 518478 donor id: DLP 2923. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2923. locality: 0.2km E of Cordoba. latitude: 18 deg. 50 min. N. longitude: 97 deg. 02 min. W. elevation: 980m. Wild. Seed.

PI 518479 donor id: DLP 2946. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2946. locality: 2km SW of Ejido Lopez Samora, Balancan Province. latitude: 17 deg. 50 min. N. longitude: 91 deg. 05 min. W. elevation: 5m. Wild. Seed.

PI 518480 donor id: DLP 2949. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2949. locality: 0.1km S of Corralito, Oxchuc Province. latitude: 16 deg. 55 min. N. longitude: 92 deg. 10 min. W. elevation: 1380m. Wild. Seed.

PI 518481. *Ipomoea x leucantha* Jacq. CONVOLVULACEAE

Donated by: Austin, D.F., Dept. Biological Services, Florida Atlantic University, Boca Raton, Florida, United States. Received October 27, 1987.

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

Donated by: Austin, D.F., Dept. Biological Services, Florida Atlantic University, Boca Raton, Florida, United States. Received October 27, 1987.

donor id: DLP 2955. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2955. locality: 2km N of Salinacruz-Pochutla, Salinacruz Province. latitude: 16 deg. 02 min. N. longitude: 95 deg. 05 min. W. elevation: 140m. Wild. Seed.

PI 518483. *Ipomoea* sp. CONVOLVULACEAE

Donated by: Austin, D.F., Dept. Biological Services, Florida Atlantic University, Boca Raton, Florida, United States. Received October 27, 1987.

PI 518483-continued

donor id: DLP 2918. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2918. locality: 8km W of Paso de Toro, Medellin Province. latitude: 19 deg. 24 min. N. longitude: 96 deg. 26 min. W. elevation: 110m. Wild. Seed.

PI 518484 to 518485. *Ipomoea squamosa* Choisey CONVOLVULACEAE

Donated by: Austin, D.F., Dept. Biological Services, Florida Atlantic University, Boca Raton, Florida, United States. Received October 27, 1987.

PI 518484 donor id: DLP 2916. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2916. locality: 11km W of Paso del Toro, Medellin Province. latitude: 19 deg. 26 min. N. longitude: 96 deg. 26 min. W. elevation: 100m. Wild. Seed.

PI 518485 donor id: DLP 2944. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2944. locality: 0.2km S of Champoton-Escarcega, Champoton Province. latitude: 19 deg. 11 min. N. longitude: 90 deg. 50 min. W. elevation: 30m. Wild. Seed.

PI 518486 to 518491. *Ipomoea tiliacea* (Willd.) Choisy CONVOLVULACEAE

Donated by: Austin, D.F., Dept. Biological Services, Florida Atlantic University, Boca Raton, Florida, United States. Received October 27, 1987.

PI 518486 donor id: DLP 2917. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2917. locality: 10km W of Paso del Toro, Medellin Province. latitude: 19 deg. 25 min. N. longitude: 96 deg. 26 min. W. elevation: 105m. Wild. Seed.

PI 518487 donor id: DLP 2919. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2919. locality: 7km W of Paso del Toro, Medellin Province. latitude: 19 deg. 23 min. N. longitude: 96 deg. 26 min. W. elevation: 110m. Wild. Seed.

PI 518488 donor id: DLP 2925. origin: Mexico. collector: D. Austin, F. de la Puente. collector id: DLP 2925. locality: 2km SE of La Piedra-Alvarado, Alvarado Province. latitude: 19 deg. 04 min. N. longitude: 96 deg. 05 min. W. elevation: 5m. Wild. Seed.

PI 518486 to 518491-continued

- PI 518489 **donor id:** DLP 2927. **origin:** Mexico. **local name:** Campanilla. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2927. **locality:** 0.1km E of Cardenas, Cardenas Province. **latitude:** 17 deg. 50 min. N. **longitude:** 93 deg. 20 min. W. **elevation:** 110m. Wild. Seed.
- PI 518490 **donor id:** DLP 2935. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2935. **locality:** 4km E of Paraiso-Fientera, Paraiso Province. **latitude:** 18 deg. 11 min. N. **longitude:** 93 deg. 04 min. W. **elevation:** 10m. Wild. Seed.
- 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

**Donated by:** Austin, D.F., Dept. Biological Services, Florida Atlantic University, Boca Raton, Florida, United States. Received October 27, 1987.

- PI 518492 **donor id:** DLP 2912. **origin:** Mexico. **local name:** Tripa de Pollo. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2912. **locality:** 0.2km N of Playa Chalchihueca, Antigua Province. **latitude:** 19 deg. 16 min. N. **longitude:** 96 deg. 17 min. W. **elevation:** 2m. Wild. Seed.
- PI 518493 **donor id:** DLP 2932. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2932. **locality:** 5km N of Comalcalco-Paraiso, Comalcalco Province. **latitude:** 18 deg. 10 min. N. **longitude:** 93 deg. 02 min. W. **elevation:** 10m. Wild. Seed.
- PI 518494 **donor id:** DLP 2934. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2934. **locality:** 2km E of Paraiso, Paraiso Province. **latitude:** 18 deg. 12 min. N. **longitude:** 93 deg. 05 min. W. **elevation:** 8m. Wild. Seed.
- PI 518495 **donor id:** DLP 2936. **origin:** Mexico. **collector:** D. Austin, F. de la Puente. **collector id:** DLP 2936. **locality:** 7km SE of Nacajuca-Villa Hermosa, Nacajuca Province. **latitude:** 18 deg. 04 min. N. **longitude:** 92 deg. 55 min. W. **elevation:** 5m. Wild. Seed.

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:** T04928. **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 Great 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 **donor id:** 9004939. **origin:** United States. **collected:** 1978. **collector:** E. Humphrey. **other id:** 26-01934. **locality:** Spring Lake Avenue, S of Grand Haven across from Rosy Mound Elementary School, Ottawa County, R16W, T8N. **remarks:** Northern type. Plants leafy, vigorous, tall. Used for critical area stabilization on sandy loam, sands, and gravel especially sand dune areas in the Great Lakes and Great Plains regions. Wild. Seed.

PI 518500 **donor id:** 9004944. **origin:** United States. **collected:** 1978. **collector:** E. Humphrey. **other id:** 26-01939. **locality:** Huron County, R21E, T18N. **remarks:** Northern type. Plants tall, vigorous. Foliage abundant, uniform. Used for critical area stabilization on sandy loam, sands, and gravel soil especially sand dune areas in the Great Lakes and Great Plains regions. Wild. Seed.

PI 518501 **donor id:** 9004959. **origin:** United States. **collected:** 1978. **collector:** D.V. Wilson. **other id:** 26-01961. **locality:** Porter County, R5W, T37N. **remarks:** Northern type. Plants leafy, vigorous, tall. Used for critical area stabilization on sandy loam, sands, and gravel soils especially sand dune areas in the Great Lakes and Great Plains regions. Wild. Seed.

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 **donor id:** 9031712. **origin:** United States. **collected:** 1980. **collector:** J.J. Pinkard. **other id:** 26-02006. **locality:** Marquette County, R30W, T45N, MLRA 93. **remarks:** Tillers/suckers abundant. Used for critical area stabilization on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.

PI 518503 **donor id:** 9031717. **origin:** United States. **collected:** 1981. **other id:** 26-02017. **locality:** Calhoun County, R2W, T12S, Sec. 3, MLRA 115. **remarks:** Tillers/suckers abundant. Vigor excellent. Used for critical area stabilization primarily on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.

PI 518502 to 518511-continued

- PI 518504 **donor id:** 9031719. **origin:** United States. **collected:** 1981. **other id:** 26-02027. **locality:** Brown County, R1E, T10N, Sec. 1, MLRA 120. **remarks:** Seed production heavy. Plants vigorous. Used for critical area stabilization primarily on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.
- PI 518505 **donor id:** 9031736. **origin:** United States. **collected:** 1981. **collector:** C.Lee, J. Zimmerman. **other id:** 26-02065. **locality:** Nodaway County, R35W, T62N, Sec. 7, MLRA 107. **remarks:** Tillers/suckers abundant. Plants vigorous. Used for critical area stabilization primarily on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.
- PI 518506 **donor id:** 9031748. **origin:** United States. **collected:** 1981. **collector:** J. Blandford. **other id:** 26-02093. **locality:** Harrison County, R5E, T4S, Sec. 34, MLRA 122. **remarks:** Growth uniform. Seed production heavy. Used for critical area stabilization primarily on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.
- PI 518507 **donor id:** 9031759. **origin:** United States. **collected:** 1981. **collector:** K.R. Blan. **other id:** 26-02105. **locality:** East side of I-29, .8km N of mile post 54, N of St. Joseph, Andrew County, MLRA 107. **remarks:** Tillers/suckers abundant. Plants vigorous. Used for critical area stabilization primarily on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.
- PI 518508 **donor id:** 9031769. **origin:** United States. **collected:** 1981. **collector:** G.S. Domian. **other id:** 26-02122. **locality:** New London County, MLRA 144A. **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 518509 **donor id:** 9031775. **origin:** United States. **collected:** 1981. **collector:** Secor. **other id:** 26-02130. **locality:** Prince Georges County, MLRA 149. **remarks:** Plants produce tillers/suckers. Seed production good. Used for critical area stabilization primarily on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.
- PI 518510 **donor id:** 9031828. **origin:** United States. **collected:** 1981. **collector:** W. Lane. **other id:** 26-02215. **locality:** Howard County, R16W, T50N, Sec. 10, MLRA 115. **remarks:** Plants produce tillers/suckers. Seed production good. Used for critical area stabilization primarily on acid mine spoil in midwestern and northeastern U.S. Wild. Seed.

PI 518502 to 518511-continued

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. other id: XK786251. remarks: Height medium-short. Maturity very early. Yield high. Lodging resistant. Seeds naked. Spring Annual. Cultivar. Seed.

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.



PI 518514 to 518549-continued

- PI 518518 donor id: 29. origin: China, Peoples Repub of.  
cultivar: DA BAI KE (HAI CHENG). Cultivar. Seed.
- PI 518519 donor id: 57. origin: China, Peoples Repub of.  
cultivar: DA LI HONG (HEI LONG JIANG). Cultivar. Seed.
- PI 518520 donor id: 105. origin: China, Peoples Repub of.  
cultivar: SHUANG XIN HONG (KAI YUAN). Cultivar. Seed.
- PI 518521 donor id: 106. origin: China, Peoples Repub of.  
cultivar: SHUANG XIN HONG (WU CHANG). Cultivar. Seed.
- PI 518522 donor id: 110. origin: China, Peoples Repub of.  
cultivar: PING DING XIANG (A CHENG). Cultivar. Seed.
- PI 518523 donor id: 123. origin: China, Peoples Repub of.  
cultivar: BAI DA SHE YAN (CHAO YANG). Cultivar. Seed.
- 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.  
cultivar: BAI GAO LIANG (XING CHENG). Cultivar. Seed.
- 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.  
cultivar: GUAN DONG QING (JIN ZHOU). Cultivar. Seed.
- PI 518530 donor id: 167. origin: China, Peoples Repub of.  
cultivar: HONG KE (FU SONG). Cultivar. Seed.
- 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 518533 donor id: 219. origin: China, Peoples Repub of.  
cultivar: WAI BO ZHANG (QING YUANG). Cultivar. Seed.

PI 518514 to 518549-continued

- PI 518534 donor id: 248. origin: China, Peoples Repub of.  
cultivar: HUANG KE XIAO BAI GAO LIANG (CHOU YANG).  
Cultivar. Seed.
- PI 518535 donor id: 253. origin: China, Peoples Repub of.  
cultivar: HUANG KE BAI NIAN QIAO JIAO (KA ZUO).  
Cultivar. Seed.
- PI 518536 donor id: 254. origin: China, Peoples Repub of.  
cultivar: HUANG KE ZAO GAO LIANG (XIN BIN). Cultivar.  
Seed.
- PI 518537 donor id: 275. origin: China, Peoples Repub of.  
cultivar: NIAN GAO LIANG (YONG JI). Cultivar. Seed.
- PI 518538 donor id: 282. origin: China, Peoples Repub of.  
cultivar: NIAN GAO LIANG (XIN MIN). Cultivar. Seed.
- PI 518539 donor id: 347. origin: China, Peoples Repub of.  
cultivar: XIONG YUE 253. Cultivar. Seed.
- PI 518540 donor id: 557. origin: China, Peoples Repub of.  
cultivar: BAI PING. Cultivar. Seed.
- PI 518541 donor id: 577. origin: China, Peoples Repub of.  
cultivar: BAI GAO LIANG (LAI YANG). Cultivar. Seed.
- PI 518542 donor id: 593. origin: China, Peoples Repub of.  
cultivar: BAI AI (LONG HUA). Cultivar. Seed.
- PI 518543 donor id: 600. origin: China, Peoples Repub of.  
cultivar: MU ZHU GOU (HE ZE). Cultivar. Seed.
- PI 518544 donor id: 741. origin: China, Peoples Repub of.  
cultivar: WU DA LANG (XUAN HUA). Cultivar. Seed.
- PI 518545 donor id: 3046. origin: China, Peoples Repub of.  
cultivar: BA YE QI (FU XIN). Cultivar. Seed.
- PI 518546 donor id: 3113. origin: China, Peoples Repub of.  
cultivar: XIAO BAI NIANG (JIN ZHOU). Cultivar. Seed.
- PI 518547 donor id: 3335. origin: China, Peoples Repub of.  
cultivar: GUAN DONG QING (SUI ZHONG). Cultivar. Seed.
- PI 518548 donor id: 3467. origin: China, Peoples Repub of.  
cultivar: HUANG KE (HEI SHAN). Cultivar. Seed.
- PI 518549 donor id: 5212. origin: China, Peoples Repub of.  
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.

**donor id:** MD 75444-4. **origin:** United States. **cultivar:** PREAMBLE. **pedigree:** HARRISON/PG5-119-8A7. **other id:** CV-214. **group:** CSR-BARLEY. **remarks:** Plants six-rowed, 95cm tall, feed type. Maturity mid-season. Awnless. Glumes cream to white at maturity. Kernels typical with tightly adhering glumes and sharply pointed beaks. Yield high. Test weight good. Straw strength and winter hardiness excellent. Adapted to Maryland and the Middle Atlantic Region. Cultivar. Seed.

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 **donor id:** ID0266. **origin:** United States. **pedigree:** ID0046/ID053//Fieldwin. **remarks:** Plant height and straw strength intermediate. Awned. Chaff white. Soft, white type. Acceptable milling and pastry quality. Moderately susceptible to leaf rust. **disease resistance:** Stripe rust. Moderate to Septoria. Spring Annual. Breeding Material. Seed.

PI 518552 **donor id:** ID0271. **origin:** United States. **pedigree:** Borah/3/II-60-101//Tzpp Sonora 64/4/ID0042//Sonora 64/II-60-155. **remarks:** Plant height intermediate. Chaff white. Hard, red type. Satisfactory milling and baking quality. Susceptible to powdery mildew. **disease resistance:** Stripe rust. Moderate to Septoria. Spring Annual. Breeding Material. Seed.

PI 518553 **donor id:** ID0301. **origin:** United States. **pedigree:** Heglar/ID5006/4//II-60-156/CI 14107//Itana/3/2\*Cheyenne/PI 178383. **remarks:** Plant height and straw strength intermediate. Awned. Chaff brown. Hard, red type. Protein content moderately low. Fair milling and baking quality. Susceptible to dwarf and common bunts. **disease resistance:** Stripe rust. Winter Annual. Breeding Material. Seed.

PI 518554 **donor id:** ID0302. **origin:** United States. **pedigree:** Arbon/3/Delmar/Columbia//Burt/PI 178383. **remarks:** Plant height and straw strength intermediate. Awned. Chaff brown. Hard, red type. Poor bread crumb score. **disease resistance:** Pacific Northwest races of stripe rust and dwarf bunt. Winter Annual. Breeding Material. Seed.

PI 518551 to 518555-continued

PI 518555 **donor id:** ID0330. **origin:** United States. **pedigree:** Neeley/2\*Stephens. **remarks:** Plants 102cm tall. Straw strength intermediate. Awned. Chaff white. Soft, white type. Moderately susceptible to dwarf bunt. Susceptible to leaf rust. **disease resistance:** Moderate to stripe rust. Winter Annual. Breeding Material. Seed.

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 518556 **origin:** China, Peoples Repub of. **cultivar:** TIANJIN NO. 1. Spring Annual. Cultivar. Seed.

PI 518557 **origin:** China, Peoples Repub of. **cultivar:** AIGANQI. Spring Annual. Cultivar. Seed.

PI 518558 **origin:** China, Peoples Repub of. **cultivar:** BINHAICHEBA DAMAI. Spring Annual. Cultivar. Seed.

PI 518559 **origin:** China, Peoples Repub of. **cultivar:** MIMAI 114. Spring Annual. Cultivar. Seed.

PI 518560 **origin:** India. **cultivar:** KARAN 15. Spring Annual. Cultivar. Seed.

PI 518561 **origin:** China, Peoples Repub of. **cultivar:** ZAWSHU NO. 3. Spring Annual. Cultivar. Seed.

PI 518562 **origin:** China, Peoples Repub of. **cultivar:** ZHENONG NO. 12. Spring Annual. Cultivar. Seed.

PI 518563 **origin:** China, Peoples Repub of. **cultivar:** TACHENG DAMAI. Spring Annual. Cultivar. Seed.

PI 518564 **origin:** China, Peoples Repub of. **cultivar:** HEI DAMAI. Spring Annual. Cultivar. Seed.

PI 518565 **origin:** Canada. **cultivar:** ALBANY. Spring Annual. Cultivar. Seed.

PI 518566 **origin:** Canada. **cultivar:** MICMAC. Spring Annual. Cultivar. Seed.

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.

**origin:** China, Peoples Repub of. Spring Annual.  
**Cultivar.** Seed.

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 **origin:** China, Peoples Repub of. **cultivar:** JICHUN 403.  
Spring Annual. Cultivar. Seed.

PI 518569 **origin:** China, Peoples Repub of. **cultivar:** FENGQIANG NO.  
3. Spring Annual. Cultivar. Seed.

PI 518570 **origin:** China, Peoples Repub of. **cultivar:** FENGQIANG NO.  
2. Spring Annual. Cultivar. Seed.

PI 518571 **origin:** China, Peoples Repub of. **cultivar:** FENGQIANG NO.  
4. Spring Annual. Cultivar. Seed.

PI 518572 **origin:** China, Peoples Repub of. **cultivar:** FENGQIANG NO.  
5. Spring Annual. Cultivar. Seed.

PI 518573 **origin:** China, Peoples Repub of. **cultivar:** DAQINGSHAN  
NO. 1. Spring Annual. Cultivar. Seed.

PI 518574 **origin:** China, Peoples Repub of. **cultivar:** DAQINGSHAN  
NO. 2. Spring Annual. Cultivar. Seed.

PI 518575 **origin:** China, Peoples Repub of. **cultivar:** DAQINGSHAN  
NO. 3. Spring Annual. Cultivar. Seed.

PI 518576 **origin:** China, Peoples Repub of. **cultivar:** DAQINGSHAN  
NO. 4. Spring Annual. Cultivar. Seed.

PI 518577 **origin:** China, Peoples Repub of. **cultivar:** DAQINGSHAN  
NO. 5. Spring Annual. Cultivar. Seed.

PI 518578 **origin:** China, Peoples Repub of. **cultivar:** ZHULUDONGMAI.  
Winter Annual. Cultivar. Seed.

PI 518579 **origin:** China, Peoples Repub of. **cultivar:** YOUANGBAIFU.  
Winter Annual. Cultivar. Seed.

PI 518580 **origin:** China, Peoples Repub of. **cultivar:** KANGHANDONG.  
Winter Annual. Cultivar. Seed.

PI 518568 to 518590-continued

- PI 518581 origin: China, Peoples Repub of. cultivar: WUTAIDONGMAI.  
Winter Annual. Cultivar. Seed.
- PI 518582 origin: China, Peoples Repub of. cultivar:  
HONGSUIHONGMANG. Winter Annual. Cultivar. Seed.
- PI 518583 origin: China, Peoples Repub of. cultivar: MAOXIAOMAI.  
Winter Annual. Cultivar. Seed.
- PI 518584 origin: China, Peoples Repub of. cultivar: GOUYINGZHAO.  
Winter Annual. Cultivar. Seed.
- PI 518585 origin: China, Peoples Repub of. cultivar: TUSUILAOMAI.  
Winter Annual. Cultivar. Seed.
- PI 518586 origin: China, Peoples Repub of. cultivar: FENGKANG NO.  
2. Winter Annual. Cultivar. Seed.
- PI 518587 origin: China, Peoples Repub of. cultivar: FENGKANG NO.  
8. Winter Annual. Cultivar. Seed.
- PI 518588 origin: China, Peoples Repub of. cultivar: FENGKANG NO.  
13. Winter Annual. Cultivar. Seed.
- PI 518589 origin: China, Peoples Repub of. cultivar: DONGXIE NO.  
3. Winter Annual. Cultivar. Seed.
- PI 518590 origin: China, Peoples Repub of. cultivar: DONGXIE NO.  
4. Winter Annual. Cultivar. Seed.

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. **remarks:** Plants  
tall, hard, red type. Straw strength moderate. Quality  
satisfactory. Susceptible to wheat streak mosaic and  
soilborne viruses. Some tolerance to *Cephalosporium*  
stripe. **disease resistance:** Predominant races of stem  
rust. Moderate to leaf rust races. **insect resistance:**  
Great Plains race of Hessian fly. Winter Annual.  
Cultivar. Seed.

PI 518592. *Solanum tuberosum* L. SOLANACEAE Potato

**Donated by:** Centro De Coordinacion, Casilla 5671, La Paz Edif.,  
Montevideo, Uruguay. Received June 22, 1982.

origin: Uruguay. cultivar: PAPAS AMARGAS. other id: Q  
23028. Cultivar. Tuber.

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 518593	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: BAISUIBAI.
PI 518594	origin: China, Peoples Repub of. Winter Annual. Cultivar. Seed.	cultivar: BEIJING 15.
PI 518595	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: DATOUHUANG.
PI 518596	origin: China, Peoples Repub of. Winter Annual. Cultivar. Seed.	cultivar: GIMAI 1.
PI 518597	origin: China, Peoples Repub of. Winter Annual. Cultivar. Seed.	cultivar: GIMAI 2.
PI 518598	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: HONGHUAWU.
PI 518599	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: HONGSILENG.
PI 518600	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: HONGTIAOMAI.
PI 518601	origin: China, Peoples Repub of. Winter Annual. Cultivar. Seed.	cultivar: HONGTUTOU.
PI 518602	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: HONGYANGMAI.
PI 518603	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: HUIXIAOMAI.
PI 518604	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: YOUZIMAI.
PI 518605	origin: China, Peoples Repub of. Spring Annual. Cultivar. Seed.	cultivar: ZHUGANQIN.

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:** ASTRAKHANSKIJ. **locality:** Astrakhanskij. **Cultivar.** Seed.

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:** KUZYBAJ 30. **Cultivar.** Seed.

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:** VAHSHSKIJ 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. Spring Annual. Breeding Material. Seed.

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. Spring Annual. Breeding Material. Seed.



PI 518613 to 518628-continued

- PI 518615 **donor id:** WA 7632. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **other id:** GP-299. **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. Spring Annual. Breeding Material. Seed.
- PI 518616 **donor id:** WA 7633. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **other id:** GP-300. **group:** CSR-WHEAT. **remarks:** Soft, white isoline for culm length. Genotype Rht 1 Rht 1 Rht 2 Rht 2. Culm length 49cm. Similar to Marfed except for culm length. Spring Annual. Breeding Material. Seed.
- PI 518617 **donor id:** WA 7634. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **other id:** GP-301. **group:** CSR-WHEAT. **remarks:** Soft, white isoline for culm length. Genotype Rht 1 Rht 1 rht 2 rht 2. Culm length 85cm. Similar to Marfed except for culm length. Spring Annual. Breeding Material. Seed.
- PI 518618 **donor id:** WA 7635. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **other id:** GP-302. **group:** CSR-WHEAT. **remarks:** Soft, white isoline for culm length. Genotype Rht 1 Rht 1 rht 2 rht 2. Culm length 84cm. Similar to Marfed except for culm length. Spring Annual. Breeding Material. Seed.
- PI 518619 **donor id:** WA 7636. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **other id:** GP-303. **group:** CSR-WHEAT. **remarks:** Soft, white isoline for culm length. Genotype Rht 1 Rht 1 rht 2 rht 2. Culm length 88cm. Similar to Marfed except for culm length. Spring Annual. Breeding Material. Seed.
- PI 518620 **donor id:** WA 7637. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **other id:** GP-304. **group:** CSR-WHEAT. **remarks:** Soft, white isoline for culm length. Genotype Rht 1 Rht 1 rht 2 rht 2. Culm length 86cm. Similar to Marfed except for culm length. Spring Annual. Breeding Material. Seed.
- PI 518621 **donor id:** WA 7638. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10 Brevor 14//Marfed. **other id:** GP-305. **group:** CSR-WHEAT. **remarks:** Soft, white isoline for culm length. Genotype rht 1 rht 1 Rht 2 Rht 2. Clum length 78cm. Similar to Marfed except for culm length. Spring Annual. Breeding Material. Seed.

PI 518613 to 518628-continued

- PI 518622 **donor id:** WA 7639. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **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. Spring Annual. Breeding Material. Seed.
- PI 518623 **donor id:** WA 7640. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **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. Spring Annual. Breeding Material. Seed.
- PI 518624 **donor id:** WA 7641. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **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. Spring Annual. Breeding Material. Seed.
- PI 518625 **donor id:** WA 7642. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **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. Spring Annual. Breeding Material. Seed.
- PI 518626 **donor id:** WA 7643. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **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. Spring Annual. Breeding Material. Seed.
- PI 518627 **donor id:** WA 7644. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **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. Spring Annual. Breeding Material. Seed.
- PI 518628 **donor id:** WA 7645. **origin:** United States. **pedigree:** Marfed 6\*/3/Norin 10/Brevor 14//Marfed. **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. Spring Annual. Breeding Material. Seed.

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. **collected:** September 28, 1984. **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-Mexican potato collecting expedition. Received November 27, 1984.

**donor id:** TRHRG 270B. **origin:** Mexico. **collected:** 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. W. **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 518635 to 518642-continued

- PI 518638 **donor id:** OK87852R. **origin:** United States. **pedigree:** 2\* Rogers/Omugi. **other id:** GP-100. **source:** Crop Sci. 28(6):1034. **group:** CSR-BARLEY. **remarks:** Greenbug resistant near-isogenic line of PI 518637. **insect resistance:** Biotypes C & E of greenbug (*Schizaphis graminum*). Breeding Material. Seed.
- PI 518639 **donor id:** OK87853S. **origin:** United States. **pedigree:** 2\* Rogers/Omugi. **other id:** GP-101. **source:** Crop Sci. 28(6):1034. **group:** CSR-BARLEY. **remarks:** Greenbug susceptible near-isogenic line of PI 518640. Breeding Material. Seed.
- PI 518640 **donor id:** OK87853R. **origin:** United States. **pedigree:** 2\* Rogers/Omugi. **other id:** GP-102. **source:** Crop Sci. 28(6):1034. **group:** CSR-BARLEY. **remarks:** Greenbug resistant near-isogenic line of PI 518639. **insect resistance:** Biotypes C & E of greenbug (*Schizaphis graminum*). Breeding Material. Seed.
- PI 518641 **donor id:** OK87854S. **origin:** United States. **pedigree:** 2\* Rogers/Omugi. **other id:** GP-103. **source:** Crop Sci. 28(6):1034. **group:** CSR-BARLEY. **remarks:** Greenbug susceptible near-isogenic line of PI 518642. Breeding Material. Seed.
- PI 518642 **donor id:** OK87854R. **origin:** United States. **pedigree:** 2\* Rogers/Omugi. **other id:** GP-104. **source:** Crop Sci. 28(6):1034. **group:** CSR-BARLEY. **remarks:** Greenbug resistant near-isogenic line of PI 518641. **insect resistance:** Biotypes C & E of greenbug (*Schizaphis graminum*). Breeding Material. Seed.

PI 518643. *Beta vulgaris* L. CHENOPODIACEAE Sugarbeet

**Donated by:** Hecker, R.J. & Ruppel, E.G., Crops Research Lab., USDA-ARS, Colorado State University, Ft. Collins, Colorado, United States. **remarks:** Joint contribution of USDA-ARS, The Beet Sugar Development Foundation, and the Colorado Agricultural Experiment Station. Received April 13, 1988.

**donor id:** FC 709. **origin:** United States. **pedigree:** FC 702-5/FC 701-5. **other id:** GP-128. **source:** Crop Sci. 28(6):1039. **group:** CSR-SUGARBEET. **remarks:** Multigerm, pollen fertile, pseudo-self-fertile line. Susceptible to curly top virus. Bolts easily. Hypocotyls 70% green. Vigorous. Heterogenous. **disease resistance:** Root and crown rot (*Rhizoctonia solani*, AG-2). *Cercospora* leaf spot tolerant. Breeding Material. Seed.

PI 518644 to 518645. *Beta vulgaris* L. CHENOPODIACEAE Sugarbeet

Donated by: Smith, G.A., & Ruppel, E.G., Crops Research Lab., USDA-ARS, Colorado State University, Ft. Collins, Colorado, United States. remarks: Joint contribution of USDA-ARS, The Beet Sugar Development Foundation, and the Colorado Agricultural Experiment Station. Received April 13, 1988.

PI 518644 donor id: FC 609. origin: United States. pedigree: FC 504/FC 502-2//662119sl. other id: GP-126. source: Crop Sci. 28(6):1039. group: CSR-SUGARBEET. remarks: Monogerm. Pollen-fertile, self sterile, nonrestorer O-type maintainer line of FC 609 CMS (PI 518645). Moderately vigorous and good seed producer. disease resistance: Leaf spot (*Cercospera*). Breeding Material. Seed.

PI 518645 donor id: FC 609 CMS. origin: United States. pedigree: FC 504 CMS/FC 502-2//662119sl. other id: GP-127. source: Crop Sci. 28(6):1039. group: CSR-SUGARBEET. remarks: Cytoplasmic male-sterile monogerm equivalent of FC 609 (PI 518644). Good plant vigor. disease resistance: Leaf spot (*Cercospera*). Breeding Material. Seed.

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.

origin: United States. cultivar: TIFLEAF 2. pedigree: 85D2A1/Tift 383. other id: CV-1. source: Crop Sci. 28(6):1023. group: CSR-MILLET, PEARL. remarks: Plants 1.8m tall, dwarf, leafy, forage type. Forage yield high. disease resistance: High to rust (*Puccinia substriata* var. *indica*). Leaf spot (*Piricularia grisea*). Cultivar. Seed.

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

**donor id:** AM 4105. **origin:** United States. **cultivar:** THOMAS. **pedigree:** Sel. from CIMMYT Forage Nursery No. 96-1. **other id:** CV-5. **source:** Crop Sci. 28(6):1030. **group:** CSR-TRITICALE. **remarks:** Maturity early. Plants hexaploid  $2n=6x=42$ , 120cm tall, forage or grain type. Grain yields 4030kg ha. Seeds semi-vitreous. Spikes lax, mid-fusiform, 13.4cm long. Grain protein content 16.5%. Forage protein at boot 23.1%. **disease resistance:** Moderate to leaf blotch (*Septoria tritici*). Glume blotch (*Septoria nodorum*). Winter Annual. Cultivar. Seed.

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.

**origin:** Canada. **cultivar:** LAURA. **pedigree:** BW15(Manitou/Tobari 66)/BW517(Carazinho/CT 763//ATLAS 66/CT 262. **other id:** CV-737. **source:** Crop Sci. 28(6):1032. **group:** CSR-WHEAT. **other id:** Agr. Canada Reg. No. 2730. **remarks:** Plants photoperiod insensitive. Spikes oblong to fusiform, middense, midlong, erect and awned. Glumes midwide, midlong, glabrous and white. Kernels hard, red, medium size, and ovate. Germ midsize and ovate. Good bread baking and strong gluten properties. Susceptible to common bunt. **disease resistance:** Races of leaf rust (*Puccinia recondita* f. sp. *tritici*). Stem rust (*P. graminis*). Resistance to loose smut. Moderate to root rot (*Bipolaris sorokiniana*). Spring Annual. Cultivar. Seed.

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.

**origin:** United States. **cultivar:** SPARTAN. **pedigree:** Synthetic selected from progenies of 142 clones. **other id:** CV-34. **source:** Crop Sci. 28(6):1020. **group:** CSR-FESCUE. **other id:** Pickseed Syn TR. **remarks:** Leafy, persistent, turf-type. Turf attractive, dense, low-growing, fine-textured. Green color retention good. Shade tolerant. **disease resistance:** Improved to powdery mildew, (*Erysiphe graminis*), anthracnose. Netblotch (*Helminthosporium dictyoides*). Red thread (*Laetisaria fusiformis*). Cultivar. Seed.

PI 518650. *Festuca rubra* subsp. *commutata* Gaud. POACEAE Chewings  
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.

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:**  
Acl611/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 518654 **donor id:** CM 597. **origin:** Canada. **pedigree:** F5 from CM 359/CM 447. **other id:** PL-55. **source:** Crop Sci. 28(6):1042. **group:** CSR-SUNFLOWER. **remarks:** Plants early flowering, cms by backcross. Achenes black, round. Lodging resistant. **disease resistance:** Wilt (Verticillium dahliae). **Breeding Material.** Seed.

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.

**donor id:** Miscot T8-27. **origin:** United States. **pedigree:** DES 56/TAMCOT SP37. **other id:** GP-353. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Plants high-yielding. **disease resistance:** Bacterial blight (*Xanthomonas campestris* pv *malvacearum*). Fusarium wilt (*Fusarium oxysporum* f. sp. *vasinfectum*). **insect resistance:** Some to tobacco budworm (*Heliothis virescens*). **Breeding Material.** Seed.

PI 518656. *Medicago sativa* L. FABACEAE Alfalfa

**Donated by:** Dobrenz, A.K., Dept. of Plant Science, University of Arizona, Tucson, Arizona, United States. Received April 13, 1988.

**donor id:** AZ-Large Leaflet. **origin:** United States. **pedigree:** Recurrent selection for large leaflets from Hayden. **other id:** GP-207. **source:** Crop Sci. 28(6):1034. **group:** CSR-ALFALFA. **remarks:** Genetic material for incorporating into high yielding populations and for genetic/physiological studies of large leaflet trait. **Breeding Material.** Seed.

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

**donor id:** 87BL2598. **origin:** United States. **pedigree:** Selection from SC326-6/SC103-12E. **other id:** GP-232. **source:** Crop Sci. 28(6):1037. **group:** CSR-SORGHUM. **remarks:** Plants 110-115cm tall, leafy, inbred restorer line. Excellent late reproductive growth stage green leaf retention. Panicles long, cylindrical, semicompact to slightly open at maturity, with exsertion ranging from 5-10 cm. Mature spikelets single-seeded and awnless. **disease resistance:** High to leaf blight (*Exserohilum turcicum*). Rust (*Puccinia purpurea*), gray leaf spot (*Cercospora sorghi*). Zonate leaf spot (*Gloeocercospora sorghi*). Breeding Material. Seed.

PI 518658. *Deschampsia caespitosa* (L.) Beauv. POACEAE Tufted hairgrass

**Donated by:** Mitchell, W.W., Palmer Research Center, Alaska Agr. and Forestry Exp. Station, 533 E. Fireweed, Palmer, Alaska, United States. Received April 13, 1988.

**origin:** United States. **cultivar:** NORTRAN. **pedigree:** Selections from indigenous collections. **other id:** CV-113. **source:** Crop Sci. 28(6):1022. **group:** CSR-OTHER GRASSES. **remarks:** Plants tufted with narrow leaves, mostly in basal clumps, open-pollinated. Clumps topped by long diffuse inflorescences bronze to gunmetal gray. Used for revegetation, forage, and low maintenance ground cover for north-latitude locations. **disease resistance:** Rust and snow molds such as *Sclerotinia borealis*. **cold tolerance:** Superior. Cultivar. Seed.

PI 518659. *Arctagrostis latifolia* (R. Br.) Griseb. POACEAE Polargrass

**Donated by:** Mitchell, W.W., Palmer Research Center, Alaska Agric. and Forestry Exp. Station, 533 E Fireweed, Palmer, Alaska, United States. Received April 13, 1988.

**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. **remarks:** Plants 124cm tall with ears 61cm above ground. Plants dark green with small tassels and red cobs. Ears 16cm long with 14-16 rows of medium-sized kernels. Good vigor, ear fill, stalk and root strength, husk looseness and excellent stay green. Use in hybrids for central & southern South Dakota. **disease resistance:** Northern corn leaf blight (*Exserhilum turcicum*). Good to diplodia stalk rot (*Diplodia maydis*). Breeding Material. Seed.

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.

**donor id:** PM1. **origin:** United States. **pedigree:** P-21\*3/*H. debilis*(PI435667)//Peredovik (*H. annuus*). **other id:** GP-94. **source:** Crop Sci. 28(6):1040. **group:** CSR-SUNFLOWER. **remarks:** Most plants 1.7m tall, single-headed, self-compatible. Seeds black or black with white stripes, 57g/1000. **disease resistance:** Powdery mildew (*Erysiphe cichoracearum*). Breeding Material. Seed.

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 518662-continued

**origin:** United States. **cultivar:** SR 4100. **pedigree:** Composite MC/composite BM. **other id:** CV-112. **source:** Crop Sci. 28(6):1021. **group:** CSR-OTHER GRASSES.  
**remarks:** Plants leafy, aggressive, persistent, dense, attractive, fine-textured, medium low bright, dark green turf. Good mowing qualities. Excellent seedling vigor. Good wear tolerance. Used for home lawns, parks, golf courses, athletic fields. Good winterhardiness. Good summer performance. **disease resistance:** Moderately good to crown rust and large brown patch. Moderate to stem rust. Good to winter net blotch. **insect resistance:** Billbugs (*Sphenophorus* spp.), Lepidopterous sod webworms. Cultivar. Seed.

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.

**donor id:** S79-4259. **origin:** United States. **cultivar:** AVERY. **pedigree:** Bedford/Crawford. **other id:** CV-214. **source:** Crop Sci. 28(6):1024. **group:** CSR-SOYBEAN.  
**remarks:** Late maturity Group IV. Indeterminate. Flowers white. Pubescence tawny. Pod walls brown. Seeds yellow with black hila. Plants lodge when growth is excessive. **disease resistance:** Bacterial pustule (*Xanthomonas phaseoli*). **nematode resistance:** High to races 3 & 4 of soybean cyst (*Heterodera glycines*). Moderate to root knot (*Meloidogyne incognita*). Cultivar. Seed.

PI 518664. *Glycine max* (L.) Merr. FABACEAE Soybean

**Donated by:** Buss, G.R., Dept. of Agronomy, Virginia Polytechnic Inst. & State Univ., Blacksburg, Virginia, United States. Received April 13, 1988.

**donor id:** V78-184. **origin:** United States. **cultivar:** HUTCHESON. **pedigree:** V68-1034/Essex. **other id:** CV-215. **source:** Crop Sci. 28(6):1024. **group:** CSR-SOYBEAN.  
**remarks:** Mid-maturity group V. Determinate. Adapted to latitudes 34-38 degrees N from the Atlantic Coast to the Mississippi River. Flowers white. Pubescence gray. Pod walls tan. Cotyledons yellow with dull yellow seedcoats and buff hila. Susceptible to soybean cyst and root knot nematodes. **disease resistance:** Bacterial pustule (*Xanthomonas campestris*). Soybean mosaic, peanut mosaic and stunt viruses. Cultivar. Seed.

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.

**donor id:** F83-1415. **origin:** United States. **cultivar:** PADRE. **pedigree:** Forrest\*3/D77-12480. **other id:** CV-216. **source:** Crop Sci. 28(6):1025. **group:** CSR-SOYBEAN. **remarks:** Group VII maturity in Mississippi, Group IX in lower Rio Grande valley. Plants 90-100cm, determinate. Flowers white. Pubescence tawny. Pod walls tan. Seeds yellow with black hila. Yield high. Adapted to a wide range of planting dates in the lower Rio Grande Valley. **nematode resistance:** *Rotylenchulus reniformis*. Cultivar. Seed.

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. Seed 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.

**origin:** United States. **cultivar:** TN4-86. **pedigree:** Bedford/Crawford. **other id:** CV-219. **source:** Crop Sci. 28(6):1026. **group:** CSR-SOYBEAN. **remarks:** Maturity group IV, indeterminate. Pubescence tawny. Flowers purple. Pod walls tan. Seed yellow with black hila. Seed yield high. **disease resistance:** Bacterial pustule. Moderate to purple seed stain. **nematode resistance:** Races 3 & 4 if soybean cyst. Moderate to root-knot and peanut root-knot. Cultivar. Seed.

PI 518669 to 518673. *Glycine max* (L.) Merr. FABACEAE Soybean

**Donated by:** Bernard, R.L., UDSA-ARS, Dept. of Agronomy, Univ. of Illinois, 1102 S. Goodwin, Urbana, Illinois, United States. Received April 13, 1988.

PI 518669 **origin:** United States. **cultivar:** CORSOY 79. **pedigree:** Corsoy \*6/Lee 68. **other id:** CV-220. **source:** Crop Sci. 28(6):1027. **group:** CSR-SOYBEAN. **other id:** L75-3674. **remarks:** Relative maturity 20. Stems indeterminate. Flowers purple. Pubescence gray. Pods brown at maturity. Seeds dull yellow with yellow hila. Plants similar to Corsoy except for phytophthora rot resistance. **disease resistance:** 15 of 25 races of *Phytophthora megasperma* f. sp. *glycinea*. Cultivar. Seed.

PI 518670 **origin:** United States. **cultivar:** WILLIAMS 79. **pedigree:** William \*6/Lee 68. **other id:** CV-221. **source:** Crop Sci. 28(6):1027. **group:** CSR-SOYBEAN. **remarks:** Relative maturity 37. Stems indeterminate. Flowers white. Pubescence brown. Pods tan at maturity. Seeds yellow, shiny with black to light black hila. Plants similar in appearance to Williams. **disease resistance:** 15 of 25 races of *Phytophthora megasperma* f. sp. *glycinea*. Cultivar. Seed.

PI 518671 **origin:** United States. **cultivar:** WILLIAMS 82. **pedigree:** William \*7/Kingwa. **other id:** CV-222. **source:** Crop Sci. 28(6):1027. **group:** CSR-SOYBEAN. **other id:** L24A. **remarks:** Relative maturity 38. Stems indeterminate. Flowers white. Pubescence brown. Pods tan at maturity. Seeds yellow, shiny with black to light brown hila. Plants similar to Williams. **disease resistance:** 19 of 24 races of *Phytophthora megasperma* f. sp. *glycinea*. except for *Phytophthora*. Cultivar. Seed.

PI 518669 to 518673-continued

- PI 518672 **origin:** United States. **cultivar:** WILL. **pedigree:** Williams \*6//Clark \*6/T1172. **other id:** CV-223. **source:** Crop Sci. 28(6):1028. **group:** CSR-SOYBEAN. **other id:** L22. **remarks:** Relative maturity 33, 5 days earlier than Williams. Stems semi-determinate (gene DT2). Lodging resistant. Improved seed quality. Cultivar. Seed.
- PI 518673 **origin:** United States. **cultivar:** LAWRENCE. **pedigree:** Calland/Williams. **other id:** CV-224. **source:** Crop Sci. 28(6):1028. **group:** CSR-SOYBEAN. **other id:** L74L-125. **remarks:** Maturity Group IV, relative maturity 41. Adaptive to latitudes 37-39 degrees. Seed yield high. Lodging resistance excellent. Flowers purple. Pubescence brown. Pods tan at maturity. Seeds dull yellow with black hila. Cultivar. Seed.

PI 518674 to 518677. Glycine max (L.) Merr. FABACEAE Soybean

**Donated by:** Bernard, R.L., USDA-ARS, Dept. of Agronomy, Univ. of Illinois, 1102 S. Goodwin, Urbana, Illinois, United States.  
**remarks:** Cooperative investigations by USDA-ARS and the Illinois and Missouri Agricultural Experiment Stations. Received April 13, 1988.

- PI 518674 **origin:** United States. **cultivar:** FAYETTE. **pedigree:** Williams/PI 88788. **other id:** CV-225. **source:** Crop Sci. 28(6):1028. **group:** CSR-SOYBEAN. **remarks:** Relative maturity 39. Stems indeterminate. Flowers white. Pubescence brown. Pods tan at maturity. Seeds yellow, shiny with black to light black hila. Adapted to 37-41 degrees N latitudes. **disease resistance:** Bacterial pustule, good to downy mildew. Moderate to brown stem rot (*Philophora gregata*). **nematode resistance:** Races 3 and 4 of soybean cyst (*Heterodera glycines*). Cultivar. Seed.
- PI 518675 **origin:** United States. **cultivar:** CARTTER. **pedigree:** Williams\*2/PI 88788. **other id:** CV-226. **source:** Crop Sci. 28(6):1029. **group:** CSR-SOYBEAN. **remarks:** Relative maturity 31. Stems indeterminate. Flowers white. Pubescence brown. Pods tan at maturity. Seeds yellow, shiny with black hila. Adapted to 39-42 degrees N latitudes. **disease resistance:** Bacterial pustule (*Xanthomonas campestris* pv. *glycines*). Many races of downy mildew (*Peronospora manshurica*). **nematode resistance:** Mod. to races 3 & 4 of soybean cyst (*Heterodera glycines*). Cultivar. Seed.

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. **other id:** L76-141B. **remarks:** Relative maturity 21. Stems indeterminate. Flowers purple. Pubescence gray. Pods brown. Seeds shiny yellow with buff hila. Adapted to 41-43 degree N latitudes. Susceptible to bacterial pustule. **disease resistance:** Phytophthora rot (Phytophthora megasperma f. sp. glycinea). **nematode resistance:** High to race 3 of soybean cyst (Heterodera glycines). Cultivar. Seed.

PI 518677 **origin:** United States. **cultivar:** CN290. **other id:** CV-228. **source:** Crop Sci. 28(6):1030. **group:** CSR-SOYBEAN. **remarks:** Relative maturity 29. Stems indeterminate. Flowers purple. Pubescence gray. Pods brown. Seeds yellow with buff hila. Adapted to 41-42 degree N latitudes. **disease resistance:** Phytophthora rot (Phytophthora megasperma f. sp. glycinea). Bacterial pustule. **nematode resistance:** High to race 3, soybean cyst nematode (Heterodera glycines). Cultivar. Seed.

PI 518678 to 518681. Cucurbita maxima Duch. CUCURBITACEAE Winter squash

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

PI 518678 **donor id:** 30144. **origin:** United States. **local name:** Banana squash. **collected:** October 06, 1984. **collector:** M. Nee. **collector id:** 30144. **locality:** Purchased roadside fruit and vegetable stand, near Fitchville, Huron County, New York. **remarks:** Local type. Peduncle tan, corky. Fruit pink, smooth and unmarked with a light green zone at flower end. Seeds deep tan. Cultivated. Seed.

PI 518679 **donor id:** 30146. **origin:** United States. **local name:** Turban squash. **collected:** October 06, 1984. **collector:** M. Nee. **collector id:** 30146. **locality:** Fitchville, Huron County, New York. **remarks:** Local type. Cultivated. Seed.

PI 518680 **donor id:** 34180. **origin:** Bolivia. **local name:** Zapallo. **collected:** February 19, 1987. **collector:** M. Nee. **collector id:** 34180. **locality:** Market, Cochabamba, Depto. Cochabamba. **remarks:** Fruits highly umbillicate. First year this type seen in the city. Cultivated. Seed.



PI 518678 to 518681-continued

PI 518681 donor id: 35328. origin: Bolivia. local name: Zapallo.  
collected: July 23, 1987. collector: M. Nee. collector  
id: 35328. locality: Boyuibe, Depto. Santa Cruz.  
latitude: 20 deg. 26 min. S. longitude: 63 deg. 17 min.  
W. remarks: Grown locally. Seeds eaten. Cultivated.  
Seed.

PI 518682 to 518686. Cucurbita moschata (Duch.) Duch. ex Poir.  
CUCURBITACEAE Squash

Donated by: Nee, M., The New York Botanical Garden, Bronx, New York,  
United States. remarks: Received through T.C. Andres, Dept. of  
Horticultural Science, New York State Agr. Exp. Sta., Geneva, New  
York. Received February 03, 1988.

PI 518682 donor id: 30152. origin: United States. local name:  
Calabaza. collected: October 17, 1984. collector: M.  
Nee. collector id: 30152. locality: Latino grocery  
store, Bronx, Bronx County. remarks: Origin unknown.  
Pedicel greenish tan, hard. Fruit bright, dark green,  
with 7-10 lighter stripes and some flecks of  
yellow-orange. Flesh yellow-orange. Pulp orange. Seeds  
light brown, flecked with white, all but the margin  
turning white during drying. Cultivated. Seed.

PI 518683 donor id: 33273. origin: United States. collected:  
November 20, 1986. collector: M. Nee. collector id:  
33273. locality: Grocery store, Yonkers, Westchester  
County. Cultivated. Seed.

PI 518684 donor id: 34258a. origin: Bolivia. collected: February  
25, 1987. collector: M. Nee. collector id: 34258a.  
locality: Market, Trinidad, Dept. Beni. elevation: 150m.  
remarks: Fruit long. Said to be grown locally.  
Cultivated. Seed.

PI 518685 donor id: 34258b. origin: Bolivia. collected: February  
25, 1987. collector: M. Nee. collector id: 34258b.  
locality: Market, Trinidad, Dept. Beni. elevation: 150m.  
remarks: Fruit short, squat. Cultivated. Seed.

PI 518686 donor id: 35327. origin: Bolivia. local name: Joko or  
anko. collected: July 23, 1987. collector: M. Nee.  
collector id: 35327. locality: Boyuibe, Depto. Santa  
Cruz. latitude: 20 deg. 26 min. S. longitude: 63 deg.  
17 min. W. elevation: 810m. remarks: Grown locally.  
Seeds eaten. Cultivated. Seed.

PI 518687 to 518689. *Cucurbita pepo* L. CUCURBITACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

PI 518687 **donor id:** 30153. **origin:** United States. **local name:** Acorn squash. **collected:** October 17, 1984. **collector:** M. Nee. **collector id:** 30153. **locality:** Grocery store, Bronx, Bronx County. Cultivated. Seed.

PI 518688 **donor id:** 33272. **origin:** United States. **local name:** Acorn squash. **collected:** November 20, 1986. **collector:** M. Nee. **collector id:** 33272. **locality:** Grocery store, Yonkers, Westchester County. Cultivated. Seed.

PI 518689 **donor id:** 33829. **origin:** Bolivia. **local name:** Joko japonés. **collected:** January 27, 1987. **collector:** M. Nee. **collector id:** 33829. **locality:** Market, Santa Cruz, Dept. Santa Cruz. **remarks:** Fruit bright pumpkin-orange. Cultivated. Seed.

PI 518690 to 518691. *Cyclanthera pedata* (L.) Schrad. CUCURBITACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

PI 518690 **donor id:** 32541. **origin:** Colombia. **local name:** Pepino de relleno. **collected:** July 06, 1986. **collector:** M. Nee. **collector id:** 32541. **locality:** Purchased in market, Medellin, Dept. Antioquia. **elevation:** 1450m. Cultivated. Seed.

PI 518691 **donor id:** 33886. **origin:** Bolivia. **local name:** Achojcha. **collected:** January 31, 1987. **collector:** M. Nee. **collector id:** 33886. **locality:** Purchased in market, Vallegrande, Dept. Santa Cruz. **elevation:** 2020m. Cultivated. Seed.

PI 518692. *Lagenaria siceraria* (Mol.) Standl. CUCURBITACEAE Bottle gourd

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

PI 518692-continued

**donor id:** 31286. **origin:** Bolivia. **local name:** Poro.  
**collected:** August 04, 1985. **collector:** M. Nee.  
**collector id:** 31286. **locality:** Market, La Paz. **remarks:**  
Originally from Santa Cruz. Cultivated. Seed.

PI 518693. *Sicana odorifera* (Vell.) Naud. CUCURBITACEAE Casabanana

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York,  
United States. **remarks:** Received through T.C. Andres, Dept. of  
Horticultural Science, New York State Agr. Exp. Sta., Geneva, New  
York. Received February 03, 1988.

**donor id:** 31293. **origin:** Bolivia. **local name:** Melon de  
los chinos. **collected:** August 06, 1985. **collector:** M.  
Nee. **collector id:** 31293. **locality:** Market, La Paz.  
**remarks:** Originally from Santa Cruz. Cultivated. Seed.

PI 518694. *Solanum aethiopicum* L. SOLANACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York,  
United States. **remarks:** Received through T.C. Andres, Dept. of  
Horticultural Science, New York State Agr. Exp. Sta., Geneva, New  
York. Received February 03, 1988.

**donor id:** 16067. **origin:** Italy. **origin institute:**  
Istituto e Orto Botanico, Rome. **origin institute id:**  
659. **collector:** M. Nee. **collector id:** 16067.  
Cultivated. Seed.

PI 518695. *Solanum giganteum* Jacq. SOLANACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York,  
United States. **remarks:** Received through T.C. Andres, Dept. of  
Horticultural Science, New York State Agr. Exp. Sta., Geneva, New  
York. Received February 03, 1988.

**donor id:** 14665. **origin:** German Democratic Repub.  
**origin institute:** Zentralinstitut, Gaterslaben. **origin  
institute id:** SOL 122 175. **collector:** M. Nee. **collector  
id:** 14665. Cultivated. Seed.

PI 518696. *Solanum marginatum* L. f. SOLANACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York,  
United States. **remarks:** Received through T.C. Andres, Dept. of  
Horticultural Science, New York State Agr. Exp. Sta., Geneva, New  
York. Received February 03, 1988.

PI 518696-continued

**donor id:** 16089. **origin:** Netherlands. **origin institute:** Hortus Botanicus, Univ. of Nijmegen, Nijmegen.  
**collector:** M. Nee. **collector id:** 16089. Cultivated.  
Seed.

PI 518697. *Solanum nutans* Ruiz Lopez & Pavon SOLANACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

**donor id:** 33920. **origin:** Bolivia. **collected:** January 31, 1987. **collector:** M. Nee. **collector id:** 33920.  
**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

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

**donor id:** 14673. **origin:** German Democratic Repub.  
**origin institute:** Zentralinstitut, Gaterslaben. **origin institute id:** SOL 132/73. **collector:** M. Nee. **collector id:** 14673. Cultivated. Seed.

PI 518699. *Solanum sodomeum* L. SOLANACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

**donor id:** 16071. **origin:** Italy. **origin institute:** Instituto e Orto Botanico, Rome. **origin institute id:** 665. **collector:** M. Nee. **collector id:** 16071. Cultivated. Seed.

PI 518700. *Solanum urticans* Dunal SOLANACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

PI 518700-continued

**donor id:** 33993. **origin:** Bolivia. **collected:** February 05, 1987. **collector:** M. Nee. **collector id:** 33993. **locality:** Jardin Botanico, 12km E of center of Santa Cruz, Dept. Santa Cruz. **latitude:** 17 deg. 46 min. S. **longitude:** 63 deg. 04 min. W. **elevation:** 375m. Cultivated. Seed.

PI 518701. UNIDENT-Cucurbitaceae sp. CUCURBITACEAE

**Donated by:** Nee, M., The New York Botanical Garden, Bronx, New York, United States. **remarks:** Received through T.C. Andres, Dept. of Horticultural Science, New York State Agr. Exp. Sta., Geneva, New York. Received February 03, 1988.

**donor id:** 33825. **origin:** Bolivia. **collected:** January 25, 1987. **collector:** M. Nee. **collector id:** 33825. **locality:** Gorge of Rio Pirai, 3km W of Angostura, Dept. Santa Cruz. **remarks:** Seeds small. Wild. Seed.

PI 518702 to 518729. Glycine max (L.) Merr. FABACEAE Soybean

**Donated by:** Sun, Huan, Jilin Academy of Agricultural Sciences, Gongzhuling, Jilin, Peoples Republic of China; and Ministry of Agriculture, Animal Husbandry and Fishery, Beijing, Peoples Republic of China. **remarks:** Received through R.L. Nelson, USDA-ARS, Department of Agronomy, Univ. of Illinois, Urbana, Illinois. Entries in the 1988 China-U.S. Joint Soybean Cultivar Test. Received April 25, 1988.

PI 518702 **origin:** China, Peoples Repub of. **cultivar:** FENGSHOU NO. 19. **locality:** Keshan, Heilongjiang. Cultivar. Seed.

PI 518703 **origin:** China, Peoples Repub of. **cultivar:** HEFENG NO. 25. **locality:** Jiamusi, Heilongjiang. Cultivar. Seed.

PI 518704 **origin:** China, Peoples Repub of. **cultivar:** HEIHE NO. 5. **locality:** Heihe, Heilongjiang. Cultivar. Seed.

PI 518705 **origin:** China, Peoples Repub of. **cultivar:** HEINONG NO. 28. **locality:** Harbin, Heilongjiang. Cultivar. Seed.

PI 518706 **origin:** China, Peoples Repub of. **cultivar:** HEINONG NO. 29. **locality:** Harbin, Heilongjiang. Cultivar. Seed.

PI 518707 **origin:** China, Peoples Repub of. **cultivar:** SUINONG NO. 7. **locality:** Suihua, Heilongjiang. Cultivar. Seed.

PI 518708 **origin:** China, Peoples Repub of. **cultivar:** CHANGNONG NO. 4. **locality:** Changchun, Jilin. Cultivar. Seed.

PI 518702 to 518729-continued

- 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 O).    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 518726 **origin:** China, Peoples Repub of. **cultivar:** BAOJIAOHUANG.  
**locality:** Guangzhou, Guangdong. **Cultivar.** Seed.
- PI 518727 **origin:** China, Peoples Repub of. **cultivar:** JUHUANG.  
**locality:** Guangzhou, Guangdong. **Cultivar.** Seed.
- PI 518728 **origin:** China, Peoples Repub of. **cultivar:** XIAOLIHUANG.  
**locality:** Guangzhou, Guangdong. **Cultivar.** Seed.
- PI 518729 **origin:** China, Peoples Repub of. **cultivar:**  
XINGNINGDALIHUANG. **locality:** Guangzhou, Guangdong.  
**Cultivar.** Seed.

PI 518730. *Solanum acaule* Bitter SOLANACEAE

**Donated by:** Ochoa, C.M., Wild Species Germplasm Bank, International  
Potato Center, Lima, Peru. Received October 1981.

**donor id:** OCH-11989. **origin:** Bolivia. **collected:** March  
21, 1978. **collector:** C.M. Ochoa. **collector id:**  
OCH-11989. **other id:** Q21479. **locality:** Along road to  
Lagunas de Tajsara, 5km W of Punas de Patanca, Aviles  
Province. **remarks:** Chromosome number  $2n=48$ (tetraploid).  
Wild. Tuber.

PI 518731 to 518734. *Lens culinaris* Medikus FABACEAE Lentil

**Donated by:** Andreoli, C., Centro Nac. de Pesquisa de Hortalicas,  
CNPB, 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 518731 **donor id:** CNPB 84-021. **origin:** Brazil. **Landrace.** Seed.
- PI 518732 **donor id:** CNPB 84-122. **origin:** Brazil. **Landrace.** Seed.
- PI 518733 **donor id:** CNPB 84-123. **origin:** Brazil. **Landrace.** Seed.
- PI 518734 **donor id:** CNPB 84-125. **origin:** Brazil. **Landrace.** Seed.

PI 518735 to 518744. *Zea mays* L. POACEAE Corn

**Donated by:** Jiankun, W., Hebei Acad. of Agr. and Forestry Science,  
Shijiazhuang, Hebei Province, Peoples Republic of China. Received  
April 11, 1988.

- PI 518735 **origin:** China, Peoples Repub of. **cultivar:** DAPIGUKAI.  
**Cultivar.** Seed.

PI 518735 to 518744-continued

- PI 518736 **origin:** China, Peoples Repub of. **cultivar:** DONGLINGBAI.  
Cultivar. Seed.
- PI 518737 **origin:** China, Peoples Repub of. **cultivar:** ERQIUZI.  
Cultivar. Seed.
- PI 518738 **origin:** China, Peoples Repub of. **cultivar:** JI-69.  
Cultivar. Seed.
- PI 518739 **origin:** China, Peoples Repub of. **cultivar:** JI-2578.  
Cultivar. Seed.
- PI 518740 **origin:** China, Peoples Repub of. **cultivar:** JI-4225.  
Cultivar. Seed.
- PI 518741 **origin:** China, Peoples Repub of. **cultivar:** JINDIGHUANG.  
Cultivar. Seed.
- PI 518742 **origin:** China, Peoples Repub of. **cultivar:** SHISANYIE.  
Cultivar. Seed.
- PI 518743 **origin:** China, Peoples Repub of. **cultivar:** SHUANGSUIBAI.  
Cultivar. Seed.
- PI 518744 **origin:** China, Peoples Repub of. **cultivar:** TAILIPANG.  
Cultivar. Seed.

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

**Donated by:** Bannerot, H., Sta. de Gen. et d'Amelioration des plant, C.N.R.A., Route de St. Cyr 78000, Versailles, France. **remarks:** Received through F.A. Bliss, Dept. of Horticulture, University of Wisconsin, Madison, Wisconsin. Received January 21, 1988.

**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.

**donor id:** K-17086. **origin:** Sri Lanka. **collected:** February 24, 1984. **locality:** Pasang District, Amphur Mae Chan, Chiang Rai Province. **remarks:** Open-pollinated type. Cultivated. Seed.

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 518750 **origin:** Yugoslavia. **cultivar:** NS-16. **pedigree:** Isz-10/Hodgson. Cultivar. Seed.

PI 518751 **origin:** Yugoslavia. **cultivar:** NS-20. **pedigree:** NS-Kasna/Beeson. Cultivar. Seed.

PI 518752 **origin:** Yugoslavia. **cultivar:** NS-106. Cultivar. Seed.

PI 518753 **origin:** Yugoslavia. **cultivar:** NS-L-30. **pedigree:** Corsoy/Hodgson. Cultivar. Seed.

PI 518754 **origin:** Yugoslavia. **cultivar:** NS-L-118. **pedigree:** Fiskeby/Hodgson. Cultivar. Seed.

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

**donor id:** USDA 19058M. **origin:** United States. **pedigree:** Sel. in 1950's of an open-pollinated seedling from the English female cultivar Early Green. **other id:** GP-17. **source:** Crop Sci. 28(6):1036. **group:** CSR-HOP. **remarks:** Plant male, consistently very vigorous, spring regrowth early and excellent, good primary and secondary laterals. Pollen production excellent. Alpha acids content in isolated lupulin glands averaged 26.8% over 18 years. Beta acids content 45.7%. Cohumulone content low (16%). Most seedlings of USDA 19058M highly vigorous and female progeny high yielding. **disease resistance:** Crown infection by hop downy mildew. Verticillium wilt in western Oregon. Free of hop latent and Amer. Hop latent viruses. Breeding Material. Seed.

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 **donor id:** Stoneville 825S. **origin:** United States. **pedigree:** Stoneville 825\*4/HYC 79-6. **other id:** GP-354. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Sub okra leaf type. Potential for yield increase. Breeding Material. Seed.

PI 518762 **donor id:** DES 422S. **origin:** United States. **pedigree:** DES 422\*4/HYC 79-6. **other id:** GP-355. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Sub okra leaf type. Potential for yield increase. Breeding Material. Seed.

PI 518763 **donor id:** DPL 26S. **origin:** United States. **pedigree:** DPL 26\*4/HYC 79-6. **other id:** GP-356. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Sub okra leaf type. Potential for yield increase. Breeding Material. Seed.

PI 518764 **donor id:** DPL 5540S. **origin:** United States. **pedigree:** DPL 5540\*4/HYC 79-6. **other id:** GP-357. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Sub okra leaf type. Potential for yield increase. Breeding Material. Seed.

PI 518761 to 518768-continued

- PI 518765 **donor id:** SC-1S. **origin:** United States. **pedigree:** SC-1\*4/HYC 79-6. **other id:** GP-358. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Sub okra leaf type. Potential for yield increase. Breeding Material. Seed.
- PI 518766 **donor id:** DES 210S. **origin:** United States. **pedigree:** DES 210\*4/HYC 79-6. **other id:** GP-359. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Sub okra leaf type. Potential for yield increase. Breeding Material. Seed.
- PI 518767 **donor id:** Tamcot Camd-ES. **origin:** United States. **pedigree:** Tamcot Camd-E\*4/HYC 79-6. **other id:** GP-360. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Sub okra leaf type. Potential for yield increase. Breeding Material. Seed.
- PI 518768 **donor id:** MD 65-11S. **origin:** United States. **pedigree:** MD 65-11\*5/HYC 79-6. **other id:** GP-361. **source:** Crop Sci. 28(6):1035. **group:** CSR-COTTON. **remarks:** Sub okra leaf type. Potential for yield increase. Breeding Material. Seed.

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 **donor id:** GT-DDSA(C5). **origin:** United States. **pedigree:** Chain crosses among single crosses between inbreds AB18, GE72, GT112, and F44. **other id:** GP-180. **source:** Crop Sci. 28(6):1036. **group:** CSR-MAIZE. **remarks:** Maturity classification AES 1200. Cobs white, few red. Kernels light to medium yellow, dent, few medium to deep yellow. Population A 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 (*Heliothis zea*). Breeding Material. Seed.

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 (*Heliothis zea*). **Breeding Material.** Seed.

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 17, 1988.

**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 (*Popillia japonica*). **Breeding Material.** Seed.

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

**donor id:** D86-8286. **origin:** United States. **pedigree:** Forrest \*2/PI 230970. **other id:** GP-112. **source:** Crop Sci. 28(6):1038. **group:** CSR-SOYBEAN. **remarks:** Maturity, growth characteristics, and oil and protein content similar to Forrest. Flowers white. Pubescence tawny, Pod walls tan at maturity. Seeds yellow with black hila, some shattering. Susceptible to rust isolate Taiwan 80-2. Provides a source of resistance to soybean rust, earlier in maturity, and agronomically superior to original source of resistance (PI 270970). **disease resistance:** Rust (*Phakopsora pachyrhizi*). Bacterial pustule (*Xanthomonas phaseoli*). **nematode resistance:** Race 3 soybean cyst (*Heterodera glycines*). Breeding Material. Seed.

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 518773 **donor id:** HA 335. **origin:** United States. **pedigree:** HA 89\*3/H. annuus 423. **other id:** GP-95. **source:** Crop Sci. 28(6):1040. **group:** CSR-SUNFLOWER. **remarks:** Cytoplasmic male sterile. Susceptible to races 1,3, and 4 of rust (*Puccinia helianthi*). **disease resistance:** Races 2,3, and 4 of downy mildew (*Plasmopara halstedii*). Breeding Material. Seed.

PI 518774 **donor id:** HA 336. **origin:** United States. **pedigree:** HA 89\*3/H. annuus 432. **other id:** GP-96. **source:** Crop Sci. 28(6):1040. **group:** CSR-SUNFLOWER. **remarks:** Cytoplasmic male sterile. Susceptible to races 1,3, and 4 of rust (*Puccinia helianthi*). **disease resistance:** Races 2,3, and 4 of downy mildew (*Plasmopara halstedii*). Breeding Material. Seed.

PI 518775 **donor id:** HA 337. **origin:** United States. **pedigree:** HA 89\*3/H. praecox 417. **other id:** GP-97. **source:** Crop Sci. 28(6):1040. **group:** CSR-SUNFLOWER. **remarks:** Cytoplasmic male sterile. Susceptible to races 1,3, and 4 of rust (*Puccinia helianthi*). **disease resistance:** Races 2,3, and 4 of downy mildew (*Plasmopara halstedii*). Breeding Material. Seed.

PI 518773 to 518778-continued

PI 518776 **donor id:** HA 338. **origin:** United States. **pedigree:** HA 89\*3/H. praecox 419. **other id:** GP-98. **source:** Crop Sci. 28(6):1040. **group:** CSR-SUNFLOWER. **remarks:** Cytoplasmic male sterile. Susceptible to races 1,3, and 4 of rust (*Puccinia helianthi*). **disease resistance:** Races 2,3, and 4 of downy mildew (*Plasmopara halstedii*). **Breeding Material.** Seed.

PI 518777 **donor id:** HA 339. **origin:** United States. **pedigree:** HA 89\*3/H. praecox 424. **other id:** GP-99. **source:** Crop Sci. 28(6):1040. **group:** CSR-SUNFLOWER. **remarks:** Cytoplasmic male sterile. Susceptible to races 1,3, and 4 of rust (*Puccinia helianthi*). **disease resistance:** Races 2,3, and 4 of downy mildew (*Plasmopara halstedii*). **Breeding Material.** Seed.

PI 518778 **donor id:** HA 340. **origin:** United States. **pedigree:** HA 89\*3/H. argophyllus 415. **other id:** GP-100. **source:** Crop Sci. 28(6):1040. **group:** CSR-SUNFLOWER. **remarks:** Male fertility restorer. Susceptible to races 1 and 3 of rust (*Puccinia helianthi*). **disease resistance:** Races 2,3, and 4 of downy mildew (*Plasmopara halstedii*). Race 4 of rust (*Puccinia helianthi*). **Breeding Material.** Seed.

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 **donor id:** AD-1. **origin:** United States. **pedigree:** Colchicine-induced 4x line. **other id:** PL-27. **source:** Crop Sci. 28(6):1041. **group:** CSR-SUGARBEET. **remarks:** Plants self-sterile, genetically heterogeneous, bolting susceptible. Seeds multigerm. Sucrose content very high. Leaves and tops large. Roots broad elliptic, medium position in soil. Superior combining ability for sucrose production. **disease resistance:** Medium tolerance to leaf spot (*Cercospora beticola*). **Breeding Material.** Seed.

PI 518780 **donor id:** AD-2. **origin:** United States. **pedigree:** Colchicine-induced 4x line. **other id:** PL-28. **source:** Crop Sci. 28(6):1041. **group:** CSR-SUGARBEET. **other id:** AD-645. **remarks:** Plants self-sterile, genetically heterogeneous, easy bolting. Seeds multigerm. Sucrose content high. Root yield medium. Superior combining ability for sucrose production. **disease resistance:** High to leaf spot (*Cercospora beticola*). **Breeding Material.** Seed.

PI 518779 to 518781-continued

PI 518781 **donor id:** AD-3. **origin:** United States. **other id:** PL-29.  
**source:** Crop Sci. 28(6):1041. **group:** CSR-SUGARBEET.  
**other id:** AD-724102. **remarks:** Plants self-fertile,  
genetically, heterogeneous. Seeds multigerm. Sucrose  
content high. Roots medium position in soil. Superior  
combining ability for sucrose production. Breeding  
Material. Seed.

PI 518782 to 518815. *Triticum aestivum* L. POACEAE Common wheat

**Donated by:** National Seed Storage Laboratory, Colorado State  
University, Ft. Collins, Colorado, United States. **remarks:** Received  
through Cargill Wheat Research Farm, 2450 Drake Rd., Ft. Collins,  
Colorado. Received March 04, 1988.

PI 518782 **donor id:** NSL 161819. **origin:** Soviet Union. **cultivar:**  
ALBIDUM 114. Cultivar. Seed.

PI 518783 **donor id:** NSL 161841. **origin:** UNKNOWN. **cultivar:** BAUK.  
Cultivar. Seed.

PI 518784 **donor id:** NSL 161843. **origin:** UNKNOWN. **cultivar:**  
BOGLAR. Cultivar. Seed.

PI 518785 **donor id:** NSL 161810. **origin:** UNKNOWN. **cultivar:** BOULO.  
Cultivar. Seed.

PI 518786 **donor id:** NSL 161964. **origin:** UNKNOWN. **cultivar:**  
BULGARIA GURBANOWT 21. Cultivar. Seed.

PI 518787 **donor id:** NSL 161855. **origin:** UNKNOWN. **cultivar:**  
CAPELLE/DESP. Cultivar. Seed.

PI 518788 **donor id:** NSL 161906. **origin:** UNKNOWN. **cultivar:** CCH  
80. Cultivar. Seed.

PI 518789 **donor id:** NSL 161907. **origin:** UNKNOWN. **cultivar:** CCH  
129.5. Cultivar. Seed.

PI 518790 **donor id:** NSL 161908. **origin:** UNKNOWN. **cultivar:** CH4  
176.8. Cultivar. Seed.

PI 518791 **donor id:** NSL 161909. **origin:** UNKNOWN. **cultivar:** CH4  
301-7. Cultivar. Seed.

PI 518792 **donor id:** NSL 161910. **origin:** UNKNOWN. **cultivar:** CH4  
338. Cultivar. Seed.

PI 518793 **donor id:** NSL 161911. **origin:** UNKNOWN. **cultivar:** CH4  
373.8. Cultivar. Seed.



PI 518782 to 518815-continued

PI 518794	donor id: NSL 161912.	origin: UNKNOWN.	cultivar: CH4 594.
	Cultivar.	Seed.	
PI 518795	donor id: NSL 162033.	origin: UNKNOWN.	cultivar: CHINESE 81.
	Cultivar.	Seed.	
PI 518796	donor id: NSL 161887.	origin: UNKNOWN.	cultivar: CIV-55.
	Cultivar.	Seed.	
PI 518797	donor id: NSL 161888.	origin: UNKNOWN.	cultivar: CIV-148.
	Cultivar.	Seed.	
PI 518798	donor id: NSL 161889.	origin: UNKNOWN.	cultivar: CIV-192.8.
	Cultivar.	Seed.	
PI 518799	donor id: NSL 161834.	origin: UNKNOWN.	cultivar: CLEMENT.
	Cultivar.	Seed.	
PI 518800	donor id: NSL 161824.	origin: United States.	cultivar: DANNE 145B4.
	Cultivar.	Seed.	
PI 518801	donor id: NSL 161823.	origin: United States.	cultivar: DANNE 146-4.
	Cultivar.	Seed.	
PI 518802	donor id: NSL 161822.	origin: United States.	cultivar: DANNE 150-6.
	Cultivar.	Seed.	
PI 518803	donor id: NSL 161815.	origin: United States.	cultivar: DAVID.
	Cultivar.	Seed.	
PI 518804	donor id: NSL 161803.	origin: UNKNOWN.	cultivar: DIMITROWKA.
	Cultivar.	Seed.	
PI 518805	donor id: NSL 162023.	origin: UNKNOWN.	cultivar: DOUBLE CROP.
	Cultivar.	Seed.	
PI 518806	donor id: NSL 161945.	origin: UNKNOWN.	cultivar: FET 1.
	Cultivar.	Seed.	
PI 518807	donor id: NSL 161946.	origin: UNKNOWN.	cultivar: FET 26.
	Cultivar.	Seed.	
PI 518808	donor id: NSL 161840.	origin: UNKNOWN.	cultivar: GANGOR.
	Cultivar.	Seed.	
PI 518809	donor id: NSL 161876.	origin: UNKNOWN.	cultivar: HADMERSLEBENER QUALITAS.
	Cultivar.	Seed.	
PI 518810	donor id: NSL 161842.	origin: UNKNOWN.	cultivar: HAJVAL.
	Cultivar.	Seed.	

PI 518782 to 518815-continued

- PI 518811 **donor id:** NSL 161875. **origin:** UNKNOWN. **cultivar:** KASTICKA OSMATKA. Cultivar. Seed.
- PI 518812 **donor id:** NSL 161882. **origin:** UNKNOWN. **cultivar:** K 43916. Cultivar. Seed.
- PI 518813 **donor id:** NSL 161833. **origin:** UNKNOWN. **cultivar:** LUTIN. Cultivar. Seed.
- PI 518814 **donor id:** NSL 161879. **origin:** UNKNOWN. **cultivar:** MARIS BEACON. Cultivar. Seed.
- PI 518815 **donor id:** NSL 161972. **origin:** UNKNOWN. **cultivar:** MG 1781. Cultivar. Seed.

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 518816 **donor id:** NSL 109734. **origin:** United States. **origin institute:** Plant & Soil Sciences Dept., Montana State University, Bozeman, Montana. **cultivar:** MARBERG. Cultivar. Seed.
- PI 518817 **donor id:** NSL 109785. **origin:** United States. **cultivar:** MC NAIR. Cultivar. Seed.
- PI 518818 **donor id:** NSL 90520. **origin:** United States. **origin institute:** Minnesota AES, St. Paul, Minnesota. **cultivar:** KITT. Cultivar. Seed.

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.

PI 518819-continued

**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 518820 **donor id:** 9039030. **origin:** United States. **collected:** October 1983. **collector:** Salvo; Graetz. **other id:** T-39030. **other id:** MLRA: 153B. **locality:** Fort Macon State Park, Carteret County. **latitude:** 34 deg. 40 min. N. **longitude:** 77 deg. 00 min. W. **remarks:** Stems thick. Rhizomes extensive. Excellent sand dune stabilizing plant. Growth most vigorous south of Maryland. Adapted to coastal dunes and sandy shores from Connecticut to Florida and Texas. Perennial. Breeding Material. Seed.

PI 518821 **donor id:** 9039032. **origin:** United States. **collected:** October 1983. **collector:** Salvo; Graetz. **other id:** T-39032. **other id:** MLRA: 153B. **locality:** Emerald Isle, Carteret Co., NC. **latitude:** 34 deg. 40 min. N. **longitude:** 77 deg. 00 min. W. **remarks:** Stems thick. Rhizomes extensive. Excellent sand dune stabilizing plant. Growth most vigorous south of Maryland. Adapted to coastal dunes and sandy shores from Connecticut to Florida and Texas. Perennial. Breeding Material. Seed.

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 518825    **origin:** Japan.    **cultivar:** AKA MAME.    **remarks:** Roots non-florescent.    Cultivar.    Seed.
- PI 518826    **origin:** Japan.    **cultivar:** AKANIDA.    **remarks:** Roots non-florescent.    Cultivar.    Seed.
- PI 518827    **origin:** Japan.    **cultivar:** AOGARI.    **remarks:** Roots non-florescent.    Cultivar.    Seed.
- PI 518828    **origin:** Hungary.    **cultivar:** BALVANSKA.    **remarks:** Roots non-florescent.    Cultivar.    Seed.
- PI 518829    **origin:** Hungary.    **cultivar:** DOMACA.    **remarks:** Roots non-florescent.    Cultivar.    Seed.
- PI 518830    **origin:** Yugoslavia.    **cultivar:** DOMESTIC NOVI SAD.    **remarks:** Roots non-florescent.    Cultivar.    Seed.
- PI 518831    **origin:** France.    **cultivar:** GRIGNON 21.    **remarks:** Roots non-florescent.    Cultivar.    Seed.
- PI 518832    **origin:** Yugoslavia.    **cultivar:** ITALIAN EARLY.    **remarks:** Roots non-florescent.    Cultivar.    Seed.

PI 518833. *Glycine max* (L.) Merr.    FABACEAE    Soybean

**Donated by:** North Star Grain Company, Takanawa, Minato-ku, Tokyo, Japan.    Received May 18, 1988.

**origin:** Japan.    **remarks:** Specialty type used for making natto.    Seeds very small.    Cultivated.    Seed.

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 518834    **origin:** China, Peoples Repub of.    **cultivar:** HONGMONGBAI.    **other id:** No. 1934.    **locality:** Henan Province.    **remarks:** Seeds small, red, hard.    Spring Annual.    Cultivar.    Seed.
- PI 518835    **origin:** China, Peoples Repub of.    **cultivar:** HONGMONGBAI.    **other id:** No. 531.    **locality:** Hebei Province.    Spring Annual.    Cultivar.    Seed.

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.  
remarks: F1 hybrid. Cultivar. Seed.

PI 518837 origin: China, Peoples Repub of. cultivar: WANFENG.  
remarks: F1 hybrid. Cultivar. Seed.

PI 518838 origin: China, Peoples Repub of. cultivar: ZHONGGAN 8.  
remarks: F1 hybrid. Cultivar. Seed.

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 518842 origin: China, Peoples Repub of. cultivar: DOUBLE GREEN  
156. remarks: F1 hybrid. Cultivar. Seed.

PI 518843 origin: China, Peoples Repub of. cultivar: GUANXIAN  
XIAOBAOTOU. Cultivar. Seed.

PI 518844 origin: China, Peoples Repub of. cultivar: JINQING 12.  
remarks: F1 hybrid. Cultivar. Seed.

PI 518845 origin: China, Peoples Repub of. cultivar: LUBAO.  
remarks: F1 hybrid. Cultivar. Seed.

PI 518846 origin: China, Peoples Repub of. cultivar: TIANJIN  
QINGMAYE. Cultivar. Seed.

PI 518847 origin: China, Peoples Repub of. cultivar: ZHONGFENG.  
remarks: F1 hybrid. Cultivar. Seed.

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 518849 origin: China, Peoples Repub of. cultivar: CHANGQING. remarks: F1 hybrid. Cultivar. Seed.

PI 518850 origin: China, Peoples Repub of. cultivar: ZHONGSU 1. remarks: F1 hybrid. Cultivar. Seed.

PI 518851 origin: China, Peoples Repub of. cultivar: ZHONGSU 2. remarks: F1 hybrid. Cultivar. Seed.

PI 518852 origin: China, Peoples Repub of. cultivar: ZHONGSU 3. remarks: F1 hybrid. Cultivar. Seed.

PI 518853 origin: China, Peoples Repub of. cultivar: ZHONGSU 4. remarks: F1 hybrid. Cultivar. Seed.

PI 518854 origin: China, Peoples Repub of. cultivar: ZHONGSU 5. remarks: F1 hybrid. 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 518859-continued

**donor id:** Montana-4. **origin:** United States. **pedigree:** Triticum durum cv. Wells(2n=28)\*/Agropyron intermedium (2n=42). **other id:** GP-296. **group:** CSR-WHEAT. **remarks:** Plants 150cm tall. Seeds small (24.4mg), retain hulls when threshed. Potential use as a parent in transferring genes for disease, winterhardiness, and drought resistance to wheat. Annual. Breeding Material. Seed.

PI 518860 to 518863. Cicer pinnatifidum Jaub. & Spach FABACEAE

**Donated by:** Kaiser, W.J., Western Regional P.I. Station, Washington State University, 59 Johnson Hall, Pullman, Washington, United States. Received May 16, 1988.

PI 518860 **donor id:** 110785-401. **origin:** Turkey. **collected:** July 11, 1985. **collector:** W. Kaiser, F.J. Muehlbauer. **collector id:** 110785-401. **locality:** On road to Elazig, 35km N of Diyarbakir, Diyarbakir Province. Wild. Seed.

PI 518861 **donor id:** 110785-0601. **origin:** Turkey. **collected:** July 11, 1985. **collector:** W. Kaiser, F.J. Muehlbauer. **collector id:** 110785-0601. **locality:** Rocky area near almond trees, across road from cemetery, near Harput, on road from Halzig. **elevation:** 1330m. **remarks:** Plants short. Pods small, some green, mostly shattered. Wild. Seed.

PI 518862 **donor id:** 120785-0101. **origin:** Turkey. **collected:** July 12, 1985. **collector:** W. Kaiser, F.J. Muehlbauer. **collector id:** 120785-0101. **locality:** Toward Arapkir village, 11km after Keban Dam. **elevation:** 1060m. Wild. Seed.

PI 518863 **donor id:** 130785-0301. **origin:** Turkey. **collected:** July 13, 1985. **collector:** W. Kaiser, F.J. Muehlbauer. **collector id:** 130785-0301. **locality:** Among calcareous rocks on steep slope, on Malatya-Kayseri road, 4km W of Doganlar village and 320km E of Kayseri. **remarks:** Plants 8-12cm tall. Plants dry and green, some with green pods. Wild. Seed.

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    **origin:** United States.    **cultivar:** 68F6659.    **pedigree:** KAW  
61\*5/AGENT.    **disease resistance:** Leaf rust.    Winter  
Annual.    Cultivated.    Seed.
- PI 518865    **origin:** United States.    **cultivar:** 68F6663.    **pedigree:** KAW  
61\*5/AGENT.    **disease resistance:** Leaf rust.    Winter  
Annual.    Cultivated.    Seed.
- PI 518866    **origin:** United States.    **cultivar:** 68F6667.    **pedigree:** KAW  
61\*5/AGENT.    **disease resistance:** Leaf rust.    Winter  
Annual.    Cultivated.    Seed.
- PI 518867    **origin:** United States.    **cultivar:** 68F6741.    **pedigree:**  
PARKER\*4/AGENT.    **disease resistance:** Leaf rust.    Winter.  
Annual.    Cultivated.    Seed.
- PI 518868    **origin:** United States.    **cultivar:** 68F6673.    **pedigree:**  
SCOUT\*5/AGENT.    **disease resistance:** Leaf rust.    Winter  
Annual.    Cultivated.    Seed.
- PI 518869    **origin:** United States.    **cultivar:** 68F6679.    **pedigree:**  
SCOUT\*5/AGENT.    **disease resistance:** Leaf rust.    Winter  
Annual.    Cultivated.    Seed.
- PI 518870    **origin:** United States.    **cultivar:** 68F6683.    **pedigree:**  
SCOUT\*5/AGENT.    **disease resistance:** Stem and leaf rust.  
Winter Annual.    Cultivated.    Seed.
- PI 518871    **origin:** United States.    **cultivar:** 68F6691.    **pedigree:**  
SCOUT\*5/AGENT.    **disease resistance:** Leaf rust.    Winter  
Annual.    Cultivated.    Seed.
- PI 518872    **origin:** United States.    **cultivar:** 68F6693.    **pedigree:**  
SCOUT\*5/AGENT.    **disease resistance:** Yellow (stripe) rust.  
Winter Annual.    Cultivated.    Seed.
- PI 518873    **origin:** United States.    **cultivar:** 68F6697.    **pedigree:**  
SCOUT\*5/AGENT.    **disease resistance:** Stem and leaf rust.  
Winter Annual.    Cultivated.    Seed.
- PI 518874    **origin:** United States.    **cultivar:** 68F6765.    **pedigree:**  
SCOUT\*5/AGENT.    **disease resistance:** Stem and leaf rust.  
Winter Annual.    Cultivated.    Seed.
- PI 518875    **origin:** United States.    **cultivar:** 68F6633.    **pedigree:**  
WARRIOR\*5/AGENT.    **disease resistance:** Leaf rust.    Winter  
Annual.    Cultivated.    Seed.

PI 518864 to 519876-continued

- PI 518876 **origin:** United States. **cultivar:** NE 68405. **pedigree:** NEBRED/RED CHIEF/5/KENYA 58/NEWTATCH/3/CHEYENNE/TENMARQ/2/MEDITERRANEAN/HOPE/4/PAWNEE/CHEYENNE/6/LANCER. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518877 **origin:** United States. **cultivar:** NE 68458. **pedigree:** PONCA/2\*CHEYENNE (CI 13666)/3/OMAHA/2/ATLAS 66/COMANCHE Fl. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518878 **origin:** Austria. **cultivar:** P 8120-78. **pedigree:** KAVKAZ/2/RECORD/STRUBE 10307-20/3/MEXICO 40. **disease resistance:** Yellow (stripe) rust and powdery mildew. Winter Annual. Cultivated. Seed.
- PI 518879 **origin:** United States. **cultivar:** T3562. **pedigree:** AGENT/ASOSAN/2/BEZOSTAIA,F4. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 518880 **origin:** United States. **cultivar:** T4126. **pedigree:** COMPLEX BENHUR CROSS,F7. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 518881 **origin:** United States. **cultivar:** OK66R5803. **pedigree:** BOWIE/QUADERNA. **disease resistance:** Stem and leaf rust. Winter Annual. Cultivated. Seed.
- PI 518882 **origin:** Turkey. **cultivar:** ES-P533-36-102. **pedigree:** KENYA 48.YAQUI 48-2587/2/220-39, ES-9. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 518883 **origin:** Hungary. **cultivar:** GK SAGVARI 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518884 **origin:** Austria. **cultivar:** P 4414-78. **pedigree:** RECORD/MEXICO 40/2/RECORD/3/RECORD/4/BEZOSTAJA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518885 **origin:** Austria. **cultivar:** P 8045-78. **pedigree:** PROBSTDORFER EXTREM/KAVAZ. **disease resistance:** Yellow (stripe) rust and stem rust. Winter Annual. Cultivated. Seed.
- PI 518886 **origin:** United States. **cultivar:** CO 699361. **pedigree:** CO 652422/CHRIS/2/TRIUMPH 64,73F2999. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 518887 **origin:** United States. **cultivar:** CO 701290. **pedigree:** NADADORES 63/CO 662549,70F1290. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 518888 **origin:** United States. **cultivar:** CO 701354. **pedigree:** NADADORES 63/TRAPPER/2/LANCER (KS 62136), 70F1354. **disease resistance:** Stem and leaf rust. Winter Annual. Cultivated. Seed.
- PI 518889 **origin:** United States. **cultivar:** CO 701976. **pedigree:** II-21183/CO 652363/2/MARA/SCOUT, 70F1976. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 518890 **origin:** United States. **cultivar:** CO 701979. **pedigree:** II-21183/CO 652363/2/MARA/SCOUT,70F1979. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 518891 **origin:** United States. **cultivar:** CO 702069. **pedigree:** II-18888/CO 652142/2/LANCER/KS 62136, 70F2069. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 518892 **origin:** United States. **cultivar:** CO 702150. **pedigree:** NADADORES/CO 652643,70F2150. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 518893 **origin:** United States. **cultivar:** CO 702179. **pedigree:** NADADORES/CO 652643,70F2179. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 518894 **origin:** United States. **cultivar:** CO 702188. **pedigree:** NADADORES/CO 652643,70F2188. **disease resistance:** eaf rust. Winter Annual. Cultivated. Seed.
- PI 518895 **origin:** United States. **cultivar:** NE 66429. **pedigree:** FRONTANA/CHEYENNE/2/LANCER. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518896 **origin:** United States. **cultivar:** P 5714B3-11-3-1-1. **pedigree:** KNOX/DULAR/7/\*3KNOX/6/KAWVALE/2/FULTZ/HUNGARIAN/3/WISCONSIN SELECTION 38/WABASH/2/FAIRFIELD/4/3\*TRUMBULL/2/HOPE/HUSSAR /5/KNOX/4/FAIRFIELD/3/PI 94587/2/2\*FULTZ/HUNGARIAN. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 518897    origin: United States.    cultivar: CO 701919.    pedigree: II-21183/CO 652363/2/MARA/SCOUT, 70F1919.    disease resistance: Yellow (stripe) rust.    Winter Annual. Cultivated.    Seed.
- PI 518898    origin: United States.    cultivar: CO 701920.    pedigree: II-21183/CO 652363/2/MARA/SCOUT, 70F1920.    disease resistance: Stem rust.    Winter Annual.    Cultivated. Seed.
- PI 518899    origin: United States.    cultivar: ID 0022.    pedigree: CHEYENNE\*2/PI 178383,A6258-G-6-24-10.    disease resistance: Yellow (stripe) rust.    Winter Annual. Cultivated.    Seed.
- PI 518900    origin: United States.    cultivar: A6258-F-5-35-9.    pedigree: CHEYENNE\*2/PI 178383.    disease resistance: Yellow strip rust.    Winter Annual.    Cultivated. Seed.
- PI 518901    origin: United States.    cultivar: A6258-G-6-24-5.    pedigree: CHEYENNE\*2/PI 178383.    disease resistance: Yellow (stripe) rust.    Winter Annual.    Cultivated. Seed.
- PI 518902    origin: United States.    cultivar: A63162-P-15-2.    pedigree: ITANA\*3/PI 178383.    disease resistance: Yellow (stripe) rust.    Winter Annual.    Cultivated. Seed.
- PI 518903    origin: United States.    cultivar: A63162-P-28-2.    pedigree: ITANA\*3/PI 178383.    disease resistance: Yellow (stripe) rust.    Winter Annual.    Cultivated. Seed.
- PI 518904    origin: United States.    cultivar: A6322-B-1-36-1-2.    pedigree: BISON/2/KIOWA/PI 178383.    disease resistance: Yellow (stripe) rust.    Winter Annual.    Cultivated. Seed.
- PI 518905    origin: United States.    cultivar: A6324-B-1-11-2.    pedigree: WARRIOR/2/KIOWA/PI 178383.    disease resistance: Yellow (stripe) rust.    Winter Annual.    Cultivated. Seed.
- PI 518906    origin: United States.    cultivar: A6324-B-1-34-2-3.    pedigree: WARRIOR/2/KIOWA/PI 178383.    disease resistance: Yellow (stripe) rust.    Winter Annual.    Cultivated. Seed.
- PI 518907    origin: United States.    cultivar: A6324-B-1-39-2-3.    pedigree: WARRIOR/2/KIOWA/PI 178383.    disease resistance: Yellow (stripe) rust.    Winter Annual.    Cultivated. Seed.
- PI 518908    origin: United States.    cultivar: A6258-F-6-25-2.    pedigree: CHEYENNE\*2/PI 178383.    disease resistance: Yellow (stripe) rust.    Winter Annual.    Cultivated. Seed.

PI 518864 to 519876-continued

- PI 518909    **origin:** United States.    **cultivar:** A6326-A-1-8-1.  
              **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.    **cultivar:** A6258-G-8-34-13.  
              **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.    **cultivar:** A6258-F-9-22-15.  
              **pedigree:** CHEYENNE\*2/PI 178383.    **disease resistance:**  
              Yellow (stripe) rust.    Winter Annual.    Cultivated.    Seed.
- PI 518917    **origin:** United States.    **cultivar:** A6324-B-1-39-2.  
              **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 518922 **origin:** United States. **cultivar:** A6258-G-7-10-22. **pedigree:** CHEYENNE\*2/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518923 **origin:** United States. **cultivar:** A6258-G-8-34-7-1. **pedigree:** CHEYENNE\*2/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518924 **origin:** United States. **cultivar:** A6258-F-6-13-1. **pedigree:** CHEYENNE\*2/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518925 **origin:** United States. **cultivar:** MT 00902. **pedigree:** PI 178383/ITANA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518926 **origin:** United States. **cultivar:** MT 00703. **pedigree:** PI 178383/ITANA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518927 **origin:** United States. **cultivar:** OR 6882. **pedigree:** OMAR MUTANT/3/PI 178383/2\*OMAR/2/101. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518928 **origin:** United States. **cultivar:** OR 6688. **pedigree:** PI 178383/3\*OMAR,88. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518929 **origin:** United States. **cultivar:** OR 6740. **pedigree:** PI 178383/2\*OMAR/2/101,257-6. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518930 **origin:** United States. **cultivar:** OR 687. **pedigree:** PI 178383/2\*OMAR/2/101,279-8. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518931 **origin:** United States. **cultivar:** OR 6843. **pedigree:** GAINES\*2/2/4\*OMAR/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518932 **origin:** United States. **cultivar:** OR 6944. **pedigree:** 27-15/2/RIO/REX/3/ELGIN/4/MORO, 2673. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518933 **origin:** United States. **cultivar:** OR 6975. **pedigree:** GAINES\*2/4\*OMAR/2/PI 178383/3/NORIN 10/STARING, 1883. **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:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- 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:** ORFED/ELGIN/2/ELMAR/3/PI 178383/4/ORFED/ELGIN/2/ELMAR/3/101, 79. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518941 **origin:** United States. **cultivar:** OR 6980. **pedigree:** GAINES/2/4\*OMAR/PI 178383/3/NORIN 10/STARING, 1956. **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) rust. Winter Annual. Cultivated. Seed.
- 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 518864 to 519876-continued

- 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/CI 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/CI 13447/CI 13431. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518954 **origin:** United States. **cultivar:** A70-176. **pedigree:** PI 94349/CI 13447/CI 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 518864 to 519876-continued

- PI 518956 **origin:** United States. **cultivar:** A70-183. **pedigree:** PI 94349/CI 13447/CI 13431. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518957 **origin:** United States. **cultivar:** A70-185. **pedigree:** PI 94349/CI 13447/CI 13431. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518958 **origin:** United States. **cultivar:** A70-188. **pedigree:** PI 94349/CI 13447/CI 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 518864 to 519876-continued

- 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 518864 to 519876-continued

- PI 518981 **origin:** United States. **cultivar:** VHO 67401. **pedigree:** CI 13549/CI 13750. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518982 **origin:** United States. **cultivar:** VHO 70283. **pedigree:** HOPE/REWARD/PRELUDE/3/FUNO. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518983 **origin:** United States. **cultivar:** VHO 70292. **pedigree:** CI 13438/ODIN/2/GABO. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518984 **origin:** United States. **cultivar:** VHO 70774. **pedigree:** N98/WA 4765. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518985 **origin:** United States. **cultivar:** VHO 70821. **pedigree:** C59287/CI 13438, VH 1466437. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518986 **origin:** United States. **cultivar:** VHO 70830. **pedigree:** C59287/CI 13438, VH 366437. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518987 **origin:** United States. **cultivar:** MT 7144. **pedigree:** WESTMONT\*2/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518988 **origin:** United States. **cultivar:** ID 71003. **pedigree:** REX/RIO/\*2CHEYENNE/2/3\*COMANCHE/3/2\*ITANA 65. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518989 **origin:** United States. **cultivar:** ID 71004. **pedigree:** REX/RIO/\*2CHEYENNE/2/3\*COMANCHE/3/2\*ITANA 65. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518990 **origin:** United States. **cultivar:** ID 71005. **pedigree:** REX/RIO/\*2CHEYENNE/2/3\*COMANCHE/3/2\*ITANA 65/4/HUSSAR/3\*CHEYENNE/3/ITANA 65. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518991 **origin:** United States. **cultivar:** ID 71008. **pedigree:** HUSSAR/\*3CHEYENNE (CI 13866)/\*2TENDROY (CI 13426). **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518992 **origin:** United States. **cultivar:** ID 71009. **pedigree:** HUSSAR/\*3CHEYENNE (CI 13866)/\*2TENDROY (CI 13426). **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 518993 **origin:** United States. **cultivar:** ID 71013. **pedigree:** NORIN 10/BREVOR/2/5\*BURT/3/2\*TENDOY. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- 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:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- 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:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518996 **origin:** United States. **cultivar:** ID 71020. **pedigree:** HUSSAR/\*3CHEYENNE/2/ITANA 65/4/REX/RIO/\*2CHEYENNE/2/COMMANCHE/3/TENDOY. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518997 **origin:** United States. **cultivar:** ID 71023. **pedigree:** BURT/ITANA SELECTION 215/2/ITANA 65. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518998 **origin:** United States. **cultivar:** ID 71030. **pedigree:** BURT/ITANA SELECTION 215/2/TENDOY. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 518999 **origin:** United States. **cultivar:** ID 71031. **pedigree:** BURT/ITANA SELECTION 215/2/TENDOY. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519000 **origin:** United States. **cultivar:** ID 71034. **pedigree:** BURT/ITANA SELECTION 215/2/TENDOY. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519001 **origin:** United States. **cultivar:** ID 71037. **pedigree:** REQUA/TENDOY. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519002 **origin:** United States. **cultivar:** ID 71038. **pedigree:** ITANA 65/GOLDEN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519003 **origin:** Chile. **cultivar:** N998-1C-1C-2C. **pedigree:** MARNE DESPREZ/4/\*2YAKTANA 54/3/NORIN 10/BREVOR/2/KENTANA 54. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519004 **origin:** Chile. **cultivar:** N-1005-2C-1C-1C. **pedigree:** MARNE DESPREZ/FUNELLO. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519005 **origin:** Chile. **cultivar:** N-998-4C-1C-7C-1C. **pedigree:** MARNE DESPREZ/4/2\*YAKTANA 54/3/NORIN 10/BREVOR/2/KENTANA 54. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519006 **origin:** Chile. **cultivar:** N1178-1C-2C-8C. **pedigree:** OROFEN/3/YAKTANA 54/2/NORIN 10/BREVOR/4/LERMA ROJO/5/MENFLO /6/VILMORIN 53/VOGEL 9108. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519007 **origin:** Chile. **cultivar:** N1180-2C-4C-1C. **pedigree:** OROFEN/3/YAKTANA 54/2/NORIN 10/BREVOR/4/LERMA ROJO/5/MENFLO /6/VILMORIN 53/VOGEL 9108. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519008 **origin:** Chile. **cultivar:** N1181-1C-1C-1C. **pedigree:** OROFEN/3/YAKTANA 54/2/NORIN 10/BREVOR/4/LERMA ROJO/5/MENFLO /6/VILMORIN 53/VOGEL 9139. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519009 **origin:** Chile. **cultivar:** N1182-1C-2C-3C. **pedigree:** II-50-72/3/YAQUI 54/2/NORIN 10/BREVOR/4/VILMORIN 53/VOGEL 5108. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519010 **origin:** Chile. **cultivar:** N1254-3C-1C-1C. **pedigree:** OROFEN/3/YAKTANA 54/2/NORIN 10/BREVOR/4/LERMA ROJO/5/MENFLO /6/SPRING WHEAT 467/GABO/2/LERMA/3/VOGEL 9052. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519011 **origin:** Chile. **cultivar:** N1254-5C-2C-2C. **pedigree:** OROFEN/3/YAKTANA 54/2/NORIN 10/BREVOR/4/LERMA ROJO/5/MENFLO /6/SPRING WHEAT 467/GABO/2/LERMA/3/VOGEL 9052. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519012 **origin:** Chile. **cultivar:** N1255-2C-1C-2C. **pedigree:** OROFEN/3/YAKTANA 54/2/NORIN 10/BREVOR/4/LERMA ROJO/5/MENFLO /6/SPRING WHEAT 467/GABO/2/LERMA/3/VOGEL 9052. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519013 **origin:** Chile. **cultivar:** N1549-1C-1C. **pedigree:** ETIOLE DE CHOISY/4/NORD DESPREZ/WINTER WHEAT/2/LEE/3/FRONTANA/5/NEWTATCH, 2357. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519014 **origin:** Chile. **cultivar:** N1684-2C-2C. **pedigree:** ANNE/VOGEL 9052/2/CHIFEN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519015 **origin:** Chile. **cultivar:** N1555-1C-2C. **pedigree:** DRUCHAMP/4/II-50-18/NORIN 10/2/BALILLA/3/YAQUI 54. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519016 **origin:** Chile. **cultivar:** N1586-3C-1C. **pedigree:** JUFFY II/4/WILLET SIB/2/NORIN 10/BREVOR/3/2\*YAKTANA 54A. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519017 **origin:** Chile. **cultivar:** CH13673-1T-8T-2T-2T-2T. **pedigree:** MARNE DESPREZ/TOCA 59. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519018 **origin:** Chile. **cultivar:** T-11-1T-4T-1T-1T. **pedigree:** CAPPELLE DESPREZ/K 38282. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519019 **origin:** Chile. **cultivar:** CWM-156-6-3T-1T-1T. **pedigree:** CAPPELLE DESPREZ/IBIS. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519020 **origin:** Chile. **cultivar:** T1197-3T-3T-1T-9T. **pedigree:** HEINE IV/PETIT QUIN QUIN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519021 **origin:** Chile. **cultivar:** T1062-6T-1T-1T-2T. **pedigree:** POLONIUM/CAPPELLE DESPREZ. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519022 **origin:** Chile. **cultivar:** T1226-4T-6T-2T-1T. **pedigree:** ILE DE FRANCE/DRUCHAMP. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519023 **origin:** Chile. **cultivar:** T1366-6T-5T-3T-1T. **pedigree:** ERGO II/VILMORIN 29. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519024 **origin:** Chile. **cultivar:** T413-20T-2T-7T-1T-3T. **pedigree:** PROFESSEUR JOURNEE/2\*MARNE DESPREZ. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519025 **origin:** Chile. **cultivar:** CH8613-3T-3T-11T. **pedigree:** DIJON\*/VOGEL 8136. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519026 **origin:** Chile. **cultivar:** T-1837-179T-3T-2T. **pedigree:** VOGEL 8881/HEINE IV. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519027 **origin:** United States. **cultivar:** MT 7146. **pedigree:** WESTMONT\*2/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519028 **origin:** United States. **cultivar:** MT 7147. **pedigree:** WESTMONT\*2/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519029 **origin:** United States. **cultivar:** MT 7152. **pedigree:** WESTMONT\*2/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519030 **origin:** United States. **cultivar:** MT 7157. **pedigree:** ITANA\*2/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519031 **origin:** United States. **cultivar:** MT 7163. **pedigree:** ITANA 1/PI 178383. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519032 **origin:** United States. **cultivar:** MT 7180. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 2458. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519033 **origin:** United States. **cultivar:** MT 7186. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 2458. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519034 **origin:** United States. **cultivar:** MT 7187. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519035 **origin:** United States. **cultivar:** MT 7188. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519036 **origin:** United States. **cultivar:** MT 7191. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

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. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519038 **origin:** United States. **cultivar:** MT 7193. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519039 **origin:** United States. **cultivar:** MT 7194. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519040 **origin:** United States. **cultivar:** MT 7195. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519041 **origin:** United States. **cultivar:** MT 7196. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519042 **origin:** United States. **cultivar:** MT 7197. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519043 **origin:** United States. **cultivar:** MT 7198. **pedigree:** WESTMONT\*2/PI 178383-7-10-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519044 **origin:** United States. **cultivar:** MT 71100. **pedigree:** YOGO SHORT STRAW 2458/2/WESTMONT\*2/PI 178383-7-13-9. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519045 **origin:** United States. **cultivar:** MT 71102. **pedigree:** YOGO SHORT STRAW 2458/2/WESTMONT\*2/PI 178383-7-13-9. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519046 **origin:** United States. **cultivar:** MT 71103. **pedigree:** YOGO SHORT STRAW 2458/2/WESTMONT\*2/PI 178383-7-13-9. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.



PI 518864 to 519876-continued

- PI 519047 **origin:** United States. **cultivar:** MT 71105. **pedigree:** WESTMONT\*2/PI 178383-7-13-9/2/YOGO SHORT STRAW 2458. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519048 **origin:** United States. **cultivar:** MT 71107. **pedigree:** WESTMONT\*2/PI 178383-7-13-9/2/YOGO SHORT STRAW 2458. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519049 **origin:** United States. **cultivar:** MT 71114. **pedigree:** WESTMONT\*2/PI 178383-12-1-2/2/YOGO SHORT STRAW 2458. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519050 **origin:** United States. **cultivar:** MT 71127. **pedigree:** WESTMONT\*2/PI 178383-12-1-2/2/YOGO SHORT STRAW 2. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519051 **origin:** United States. **cultivar:** MT 71131. **pedigree:** WESTMONT\*2/PI 178383-12-1-2/2/YOGO SHORT STRAW 2. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519052 **origin:** United States. **cultivar:** MT 71122. **pedigree:** WESTMONT\*2/PI 178383-12-1-2/2/YOGO SHORT STRAW 1231. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519053 **origin:** United States. **cultivar:** WA 7117491. **pedigree:** SELECTION 2629-14/3\*OMAR, 72Y-249. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519054 **origin:** United States. **cultivar:** WA 7117708. **pedigree:** LEDA/2\*BURT, 72Y-365. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519055 **origin:** United States. **cultivar:** WA 7117711. **pedigree:** LEDA/2\*BURT, 72Y-367. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519056 **origin:** United States. **cultivar:** WA 7117716. **pedigree:** REICHERSBERG 42/2\*BURT, 72Y-370. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519057 **origin:** United States. **cultivar:** WA 7117720. **pedigree:** REICHERSBERG 42/2\*BURT, 72Y-373. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519058 **origin:** United States. **cultivar:** WA 7117725. **pedigree:** REICHERSBERG 42/2\*BURT, 72Y-374. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519059 **origin:** United States. **cultivar:** WA 7117743. **pedigree:** FALCO/2\*BURT, 72Y-390. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519060 **origin:** United States. **cultivar:** WA 7117752. **pedigree:** IBIS/\*2BERT. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519061 **origin:** United States. **cultivar:** WA 7117755. **pedigree:** IBIS/2\*BURT, 72Y-400. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519062 **origin:** United States. **cultivar:** WA 5984. **pedigree:** BLACKHAWK 1205/BURT/2/CI 13253/CI 12697. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519063 **origin:** United States. **cultivar:** TIFTON 72-47. **pedigree:** TRANSFER/FW 815-X-2/2/ARTHUR. **disease resistance:** Stem and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519064 **origin:** United States. **cultivar:** TIFTON 72-4145. **pedigree:** AGENT/ASOSAN/2/ARTHUR. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519065 **origin:** Hungary. **cultivar:** GK SZEMES 1. **disease resistance:** Yellow (stripe) rust and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519066 **origin:** United States. **cultivar:** OK 77R6320. **pedigree:** TRANSFER SELECTION. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519067 **origin:** United States. **cultivar:** OK 76R6456. **pedigree:** LITTORIO 3529/2/KENYA FARMER/COMANCHE. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519068 **origin:** United States. **cultivar:** OK 75R3562. **pedigree:** BLUEBIRD/2/GAINES/OROFEN SIB. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519069 **origin:** United States. **cultivar:** OK 75R3645. **pedigree:** COFEN/STURDY/2/SUWON 92/3/HEINE KOLBEN 38/4/(II-54-45) FRONTANA/2/KENYA FARMER/NEWTATCH/3/THATCHER. **disease resistance:** Leaf rust and powdery mildew. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519070    **origin:** United States.    **cultivar:** OK 75R3741.    **pedigree:** ERA/DIBO/2/WALDRON/(CI 13232)COKER 55-9.    **disease resistance:** Leaf rust.    Winter Annual.    Cultivated.    Seed.
- PI 519071    **origin:** United States.    **cultivar:** OK 77R6699.    **pedigree:** ARGUS/COMANCHE.    **disease resistance:** Leaf rust.    Winter Annual.    Cultivated.    Seed.
- PI 519072    **origin:** United States.    **cultivar:** OK 77R6313.    **pedigree:** TRANSFER SELECTION.    **disease resistance:** Leaf rust.    Winter Annual.    Cultivated.    Seed.
- PI 519073    **origin:** United States.    **cultivar:** OK 78R8008.    **pedigree:** WICHITA/4/ WICHITA/3/TRITICUM SPECIES/AGROPYRON ELONGATUM /2/PAWNEE (F1 X RAYED)/5/WICHITA/TRANSFER.    **disease resistance:** Yellow (stripe) rust.    Winter Annual.    Cultivated.    Seed.
- PI 519074    **origin:** Hungary.    **cultivar:** GK SZEMES 2.    **disease resistance:** Yellow (stripe) rust.    Winter Annual.    Cultivated.    Seed.
- PI 519075    **origin:** United States.    **cultivar:** CO 724067.    **pedigree:** II-18889/TRAPPER/CO 652643.    **disease resistance:** Leaf rust.    Winter Annual.    Cultivated.    Seed.
- PI 519076    **origin:** United States.    **cultivar:** CO 724093.    **pedigree:** II-18889/TRAPPER/CO 652643.    **disease resistance:** Leaf rust.    Winter Annual.    Cultivated.    Seed.
- PI 519077    **origin:** United States.    **cultivar:** CO 724660.    **pedigree:** II-21183/TRAPPER/CO 652643.    **disease resistance:** Leaf rust.    Winter Annual.    Cultivated.    Seed.
- PI 519078    **origin:** United States.    **cultivar:** NE 73742.    **pedigree:** RILEY 67/SCOUTLAND.    **disease resistance:** Leaf and yellow (stripe) rust.    Winter Annual.    Cultivated.    Seed.
- PI 519079    **origin:** United States.    **cultivar:** NE 73783.    **pedigree:** BISON/7/CHINESE SPRING\*2/AEGILOPS SPECIES/3/PAWNEE/6/KIOWA /10/KENYA 58/2/NEWTATCH/4/CHEYENNE/TENMARQ/MEDITERRANEAN /HOPE/8/PAWNEE/5/CHEYENNE/9/OMAHA.    **disease resistance:** Leaf rust.    Winter Annual.    Cultivated.    Seed.

PI 518864 to 519876-continued

- PI 519080 **origin:** United States. **cultivar:** NE 73833. **pedigree:** ILLINOIS NUMBER 1/CHEYENNE \*2/2/TRITICUM TIMOPHEEVI/3/CHEYENNE/TENMARQ/MEDITERRANEAN/HOPE/2/SANDO 60/4/MCMURACHY/EXCHANGE/REDMAN/2\*HOPE/TURKEY/CHEYENNE/5/PONCA/2\*CHEYENNE. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519081 **origin:** Hungary. **cultivar:** GK ILDIKO 1. **disease resistance:** Yellow (stripe)rust and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519082 **origin:** United States. **cultivar:** NE 73839. **pedigree:** ILLINOIS NUMBER 1/CHEYENNE\*2/2/TRITICUM TIMOPHEEVI/3/CHEYENNE/TENMARQ/MEDITERRANEAN/HOPE/2/SANDO 60/4/MCMURACHY/EXCHANGE/REDMAN/2\*HOPE/TURKEY/CHEYENNE/5/PONCA/2\*CHEYENNE. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519083 **origin:** United States. **cultivar:** NE 73846. **pedigree:** ILLINOIS NUMBER 1/CHEYENNE\*2/2/TRITICUM TIMOPHEEVI/3/CHEYENNE/TENMARQ/MEDITERRANEAN/HOPE/2/SANDO 60/4/MCMURACHY/EXCHANGE/REDMAN/2\*HOPE/TENMARQ/CHEYENNE/5/PONCA/2\*CHEYENNE. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519084 **origin:** United States. **cultivar:** NE 73864. **pedigree:** ARTHUR/HOMESTEAD. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519085 **origin:** United States. **cultivar:** NE 73868. **pedigree:** WARRIOR\*2/MINN III-54-12/2/SCOUT/3/HOMESTEAD. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519086 **origin:** Romania. **cultivar:** FUNDULEA 158-69. **pedigree:** NEUZUCHT/BEZOSTAIA 1. **disease resistance:** Yellow (stripe) rust and stem rust. Winter Annual. Cultivated. Seed.
- PI 519087 **origin:** Romania. **cultivar:** FUNDULEA 36-70. **pedigree:** BEZOSTAIA 1/PRODUTTORE (128-1)/2/AURORA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519088 **origin:** Romania. **cultivar:** FUNDULEA 49-70. **pedigree:** NEUZUCHT/BEZOSTAIA 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519089 **origin:** Romania. **cultivar:** FUNDULEA 4-71. **pedigree:** NEUZUCHT/BEZOSTAIA 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519090 **origin:** Romania. **cultivar:** FUNDULEA 7-71. **pedigree:** NEUZUCHT/BEZOSTAIA 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519091 **origin:** Romania. **cultivar:** FUNDULEA 10-71. **pedigree:** NEUZUCHT/BEZOSTAIA 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519092 **origin:** Romania. **cultivar:** FUNDULEA 11-71. **pedigree:** NEUZUCHT/BEZOSTAIA 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519093 **origin:** Romania. **cultivar:** FUNDULEA 22-71. **pedigree:** JUBILIAR II/BEZOSTAIA 4 (F6-62)/2/NEUZUCHT. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519094 **origin:** Romania. **cultivar:** FUNDULEA 59-71. **pedigree:** BEZOSTAIA 1/PRODUTTORE (128-1)/2/AURORA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519095 **origin:** Romania. **cultivar:** FUNDULEA 132-71. **pedigree:** NEUZUCHT/BEZOSTAIA 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519096 **origin:** Romania. **cultivar:** FUNDULEA 134-71. **pedigree:** NEUZUCHT/BEZOSTAIA 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519097 **origin:** Romania. **cultivar:** FUNDULEA 174-71. **pedigree:** BEZOSTAIA 1/PRODUTTORE (128-1)/2/AURORA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519098 **origin:** Romania. **cultivar:** L 227-H 3. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519099 **origin:** Bulgaria. **cultivar:** SORT 12-13. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519100 **origin:** United States. **cultivar:** ?-20D-2D-2D-OH. **pedigree:** PLATIFEN/COFEN SIB. **disease resistance:** Yellow (stripe) rust stem rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519101 **origin:** United States. **cultivar:** A 1180-3D-4D-3D-1D-OH.  
**pedigree:** OROFEN/ENAFEN SIB/2/VILMORIN 53/VOGEL 9108.  
**disease resistance:** Yellow (stripe) rust. Winter Annual.  
Cultivated. Seed.
- PI 519102 **origin:** United Kingdom. **cultivar:** TP-8-8-1970.  
**pedigree:** SOSSONAI/MINISTER. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519103 **origin:** United Kingdom. **cultivar:** TP 22-13-1970.  
**pedigree:** HOLDFAST/HYBRID 46. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519104 **origin:** Hungary. **cultivar:** GK ILDIKO 2. **disease**  
**resistance:** Yellow (stripe) rust and leaf rust. Winter  
Annual. Cultivated. Seed.
- PI 519105 **origin:** Hungary. **cultivar:** GK ILDIKO 3. **disease**  
**resistance:** Yellow (stripe) rust. Winter Annual.  
Cultivated. Seed.
- PI 519106 **origin:** United States. **cultivar:** MT 7571. **pedigree:**  
14-2/2/REGAL/CHEYENNE 37-3-6. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519107 **origin:** United States. **cultivar:** MT 7570. **pedigree:**  
14-2/2/REGAL/CHEYENNE 37-3-6. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519108 **origin:** United States. **cultivar:** MT 7569. **pedigree:**  
14-2/2/REGAL/CHEYENNE 37-3-6. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519109 **origin:** United States. **cultivar:** MT 7568. **pedigree:**  
14-2/2/REGAL/CHEYENNE 39-7-4. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519110 **origin:** United States. **cultivar:** MT 7566. **pedigree:**  
11-3/2/REGAL/CHEYENNE 39-7-4. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519111 **origin:** United States. **cultivar:** MT 7565. **pedigree:**  
11-3/2/REGAL/CHEYENNE 39-7-4. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519112 **origin:** United States. **cultivar:** MT 7564. **pedigree:**  
11-3/2/REGAL/CHEYENNE 39-7-4. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519113 **origin:** United States. **cultivar:** MT 7563. **pedigree:**  
18-1/DIEHL-MEDITERRANEAN. **disease resistance:** Yellow  
(stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519114 **origin:** United States. **cultivar:** MT 7562. **pedigree:** 18-1/DIEHL-MEDITERRANEAN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519115 **origin:** United States. **cultivar:** MT 7559. **pedigree:** 18-1/REGAL/CHEYENNE 37-3-6. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519116 **origin:** Hungary. **cultivar:** GKT 5. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519117 **origin:** United States. **cultivar:** MT 7553. **pedigree:** 18-1/LANCER. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519118 **origin:** United States. **cultivar:** MT 7552. **pedigree:** 11-3/LANCER. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519119 **origin:** United States. **cultivar:** MT 7551. **pedigree:** 17-2/MT 6828. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519120 **origin:** United States. **cultivar:** MT 7548. **pedigree:** 14-2/MT 6828. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519121 **origin:** United States. **cultivar:** MT 7547. **pedigree:** 14-2/GAINES. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519122 **origin:** United States. **cultivar:** MT 7546. **pedigree:** 14-2/GAINES. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519123 **origin:** United States. **cultivar:** MT 7545. **pedigree:** 17-2/DIEHL/MEDITERRANEAN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519124 **origin:** United States. **cultivar:** MT 7544. **pedigree:** 15-2/GAINES. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519125 **origin:** United States. **cultivar:** MT 7543. **pedigree:** 11-3/2/REGAL/CHEYENNE 39-16-3. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519126 **origin:** United States. **cultivar:** FLX64-132-331. **pedigree:** WAKELAND/58C13 (KNOX: FRONTANA/KENYA FARMER/NEWTATCH). **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519127 **origin:** United States. **cultivar:** OK 71R8001. **pedigree:** FRONTANA/2/KENYA 58/NEWTATCH/3/PAWNEE. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519128 **origin:** Romania. **cultivar:** FUNDULEA 63-70. **pedigree:** BEZOSTAIA 1 PRODUTTORE (128-1)/2/KAUKAZ. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519129 **origin:** Hungary. **cultivar:** F 12.71/BEZOSTAIA 2. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519130 **origin:** United States. **cultivar:** MT 7541. **pedigree:** 10-3/2/REGAL/CHEYENNE 39-7-4. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519131 **origin:** United States. **cultivar:** WA 74-18840. **pedigree:** SUWON 92/6\*OMAR/2/TRITICUM SPELTOIDES/COASTAL/2/2\*OMAR. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519132 **origin:** United States. **cultivar:** WA 74-18795. **pedigree:** SUWON 92/6\*OMAR/2/CIL3431/CI7805/CIL3447/2\*OMAR. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519133 **origin:** Hungary. **cultivar:** F 56.72/453.602/2/NS 886. **disease resistance:** Stem and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519134 **origin:** United States. **cultivar:** OH 118. **pedigree:** BRANCHED EAR 1-5/LOGAN/2/ARTHUR. **disease resistance:** Leaf rust. Winter Annual. 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. **disease resistance:** Yellow (stripe) rust. Winter Annual. 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:** >. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519139 **origin:** United States. **cultivar:** OK 71R8210. **pedigree:** TRITICUM DICOCOIDEA/AEGILOPS SPELTOIDES/2/AUSTIN/3/QUADRAT /4/QUANAH. **disease resistance:** Yellow (stripe) rust and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519140 **origin:** United States. **cultivar:** UNKNOWN, OK 74R2944. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519141 **origin:** United States. **cultivar:** OR 7142. **pedigree:** CI 13748/MORO, 142. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519142 **origin:** United States. **cultivar:** ARK 15-11-3. **pedigree:** STADLER/BENHUR. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519143 **origin:** Romania. **cultivar:** LOVRIN 25. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519144 **origin:** Romania. **cultivar:** LOVRIN 29. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519145 **origin:** Romania. **cultivar:** FUNDULAE 51-68. **pedigree:** MCN/BEZOSTAYA 1. **disease resistance:** Yellow (stripe) rust. Leaf and stem rust. Winter Annual. Cultivated. Seed.
- PI 519146 **origin:** Romania. **cultivar:** FUNDULAE 80-73. **pedigree:** 2E+CH/MNN. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519147 **origin:** Hungary. **cultivar:** ARTHUR/2/SAVA/TPR349/3/GKT 8001/SAVA. **disease resistance:** Yellow (stripe) and stem rust. Winter Annual. Cultivated. Seed.
- PI 519148 **origin:** United States. **cultivar:** OK 74R2150. **pedigree:** KANRED/TENMARQ. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519149 **origin:** United States. **cultivar:** OK 74R2893. **pedigree:** KANRED/HARD FEDERATION/2/5\*WICHITA/TRANSFER. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519150 **origin:** United States. **cultivar:** OK 74R1807. **pedigree:** RIO NEGRO/COMANCHE. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519151 **origin:** United States. **cultivar:** OK 75R2913. **pedigree:** RIO NEGRO/COMANCHE. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519152 **origin:** United States. **cultivar:** OK 75R2411. **pedigree:** WANKEN/RED CHIEF. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519153 **origin:** United States. **cultivar:** OK 75R7065. **pedigree:** TRANSFER SELECTION. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519154 **origin:** Hungary. **cultivar:** AURORA/SANJA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519155 **origin:** Chile. **cultivar:** CAR 463. **pedigree:** MELIFEN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519156 **origin:** Chile. **cultivar:** CAR 1273. **pedigree:** CAPPELLE DESPREZ/VOGEL 8058/2/CAPPELLE DESPREZ/SELKIRK/3/ CAPPELLE DESPREZ. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519157 **origin:** Chile. **cultivar:** CAR 1621. **pedigree:** VILMORIN 29\*3/2/NORIN 10/BREVOR. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519158 **origin:** Chile. **cultivar:** CAR 1737. **pedigree:** NORIN 10/BREVOR(SEL 14)/3/27/15/2/REX/RIO(SEL 53)(CI 13447)/HEINE 110. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519159 **origin:** Chile. **cultivar:** CAR 1657. **pedigree:** MARINE DESPREZ\*2/VOGEL 8316/2/COLORADO TORCAZA/3/HEINE 110. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519160 **origin:** Chile. **cultivar:** CAR 1892. **pedigree:** MARINE DESPREZ\*3/VOGEL 7353/2/HILGENDORF/3/PONCHEAU. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519161 **origin:** Chile. **cultivar:** CAR 2019. **pedigree:** CARILLANCA 245/IBIS. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519162 **origin:** Chile. **cultivar:** CAR 2159. **pedigree:** CARILLANCA 245/REICHERSBURG 42/2/RABE/3/HILGENDORF. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519163 **origin:** Chile. **cultivar:** CAR 2161. **pedigree:** CARILLANCA 245/REICHERSBURG 42/2/RABE/3/HILGENDORF. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519164 **origin:** Chile. **cultivar:** HUENUFEN. **pedigree:** TEMU 191-72. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519165 **origin:** Chile. **cultivar:** CAR 1609. **pedigree:** CIANO F-67/HEINE 110. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519166 **origin:** Chile. **cultivar:** CAR 2112. **pedigree:** IBIS/COLLAFEN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519167 **origin:** Chile. **cultivar:** CAR 2123. **pedigree:** VOGEL 7353/4/FRONTANA/2/PREMIER/2\*BOBIN/3/GAZA/5/HEINE 110 /6/CARILLANCA 12. **disease resistance:** Yellow (stripe) and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519168 **origin:** Chile. **cultivar:** CAR 1847. **pedigree:** CAPPELLI/2/LANGDON DWARF F4/LANGDON/3/BIDI 17. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519169 **origin:** Chile. **cultivar:** CAR 1853. **pedigree:** 6204/4/YAKTANA 54/2/NORIN 10/BREVOR/3/ETHIOPIA ST 464/5/2\* BIDI 17. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519170 **origin:** Chile. **cultivar:** CAR 1856. **pedigree:** 6210/4/YAKTANA 54/2/NORIN 10/BREVOR/3/ETHIOPIA ST 464/5/2\* BIDI 17. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519171 **origin:** Chile. **cultivar:** CAR 1860. **pedigree:** 6210/4/YAKTANA 54/2/NORIN 10/BREVOR/3/ETHIOPIA ST 464/5/2\* BIDI 17. **disease resistance:** Yellow (stripe) and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519172 **origin:** Chile. **cultivar:** CAR 1876. **pedigree:** BIDI 17\*2/3/CANDEALFEN/2/LANGDON DWARF F4/LAN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

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) rust. Winter Annual. Cultivated. Seed.
- 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 Annual. Cultivated. Seed.
- PI 519177 **origin:** Chile. **cultivar:** CAR 1912. **pedigree:** CANDEALFEN/2/LANGDON DWARF F4/LANGDON/3/2\*BIDI 17. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519178 **origin:** United States. **cultivar:** FL 7111A33-G1-G10. **pedigree:** KNOX/FRONTANA/KENYA/NEWTATCH/4/WAKELAND/7/ARTHUR 71 TYPE\*3 /6/ARTHUR TYPE \*6/AGATHA/5/BEAU SIB/4/ARTHUR\*2/3/RILEY 67\*2 /2/RILEY/BULGARIA 88. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519179 **origin:** United States. **cultivar:** NE 77443. **pedigree:** PARKER/7/IL 1/2/CHINESE\*2/TRITICUM TIMOPHEEVI/6/CHEYENNE/TENMARQ/MEDITERRANEAN/HOPE/8/CENTURK. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519180 **origin:** United States. **cultivar:** NE 77577. **pedigree:** WARRIOR\*5/AGENT/2/KAVKAZ. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519181 **origin:** United States. **cultivar:** NE 77652. **pedigree:** BEZOSTAIA 1/CENTURK/2/ARTHUR/CENTURK. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519182 **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 **origin:** Chile. **cultivar:** CAR 1932. **pedigree:** BIDI 17\*2/3/CANDEALFEN/2/LANGDON DWARF F4/LANGDON. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519184 **origin:** United States. **cultivar:** SD 74219. **pedigree:** CENTURK\*2/HAND. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519185 **origin:** Bulgaria. **cultivar:** SORT 11-32-1145. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519186 **origin:** United States. **cultivar:** NE 77439. **pedigree:** NEBRED/BOLAL/2/SEL 14/SEL 53-101/3/FRONTANA/CHEYENNE/2/LANCER. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519187 **origin:** Turkey. **cultivar:** ES 589\*3-1-3. **pedigree:** YAKTANA 406\*3/2/SUPREMO 51/NAZAS. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519188 **origin:** Turkey. **cultivar:** ES 590-1-3. **pedigree:** SUPREMO 51/NAZAS/2/2800. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519189 **origin:** Turkey. **cultivar:** ES 591-1-14. **pedigree:** YAQUI 48/3/KENYA 58/NEWTATCH/2/2800. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519190 **origin:** United Kingdom. **cultivar:** R 107. **disease resistance:** Leaf rust and powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519191 **origin:** Poland. **cultivar:** LT 176-73. **disease resistance:** Powdery mildew, yellow (stripe)rust, and stem rust. Winter Annual. Cultivated. Seed.
- PI 519192 **origin:** United States. **cultivar:** GA 73-3-3-3-5. **disease resistance:** Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519193 **origin:** United States. **cultivar:** OK 78R8116. **pedigree:** CHINOFUZ/COMANCHE. **disease resistance:** Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519194 **origin:** United States. **cultivar:** OK 77R6605. **pedigree:** TIMPAW/AGATHA. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519195 **origin:** United States. **cultivar:** OK 78R8365. **pedigree:** BLUEBIRD/STURDY/2/GAZA/GABO/3/MAGNIF 27. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519196 **origin:** United States. **cultivar:** OK 787245. **pedigree:** SAGE/2/\*5 WICHITA/TRANSFER. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519197 **origin:** United States. **cultivar:** OK 79R6815. **pedigree:** SAGE/2/5\*WICHITA/TRANSFER. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519198 **origin:** United States. **cultivar:** WA 80-19432. **pedigree:** LUKE/WA 4304/2/2\*ORIN. **disease resistance:** Yellow strip rust. Winter Annual. Cultivated. Seed.
- PI 519199 **origin:** United States. **cultivar:** WA 80-18990. **pedigree:** SUWON 92/7\*OMAR/2/TRITICUM SPELTA/COASTAL/3/\*OMAR. **disease resistance:** Yellow (strip) rust. Winter Annual. Cultivated. Seed.
- PI 519200 **origin:** Yugoslavia. **cultivar:** POSAVKA 2. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519201 **origin:** France. **cultivar:** BULK PE 172-4-9-7, Fr 81-3. **pedigree:** MARIS HUNTSMAN/4/(4) AEGILOPS VENTRICOSA/TRITICUM PERSICUM /2/MARVE\*3/3/MOISSON. **disease resistance:** Powdery mildew and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519202 **origin:** Austria. **cultivar:** P 4627-80. **pedigree:** PROBSTDORF EXTREME/HP 35719/2/PROBSTDORF POKAL. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519203 **origin:** Austria. **cultivar:** P 4819-80. **pedigree:** ZAGREB/PROBSTDORF POKAL. **disease resistance:** Leaf and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519204 **origin:** France. **cultivar:** BULK 84-4-12, FR 81-12. **pedigree:** AEGILOPS VENTRICOSA/TRITICUM PERSICUM/MARNE\*3/3/MOISSON (4)/ 4/(68) CHAMPLEIN/ARONDE. **disease resistance:** Stem and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519205 **origin:** France. **cultivar:** AIGLON. **pedigree:** 3610/ATOU. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519206 **origin:** Italy. **cultivar:** TIMWIN. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519207 **origin:** Poland. **cultivar:** SMH 1739. **pedigree:** S 4625/MARIS HUNTSMAN. **disease resistance:** Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519208 **origin:** Hungary. **cultivar:** GK 001. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519209 **origin:** Hungary. **cultivar:** F 30.74. **pedigree:** ARTHUR/2/SAVA/ROUSSALKA/3/NS 171.2/4. **disease resistance:** Stem and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519210 **origin:** United States. **cultivar:** FM 760021. **pedigree:** 1955-1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519211 **origin:** Chile. **cultivar:** CAR 1274. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519212 **origin:** United States. **cultivar:** SWM 743563-01P-13H-OH. **pedigree:** COLLAFEN/BEZOSTAIA/2/SUWON 92/CI 13645 (Vg 0A4) NAINARI 60/4 /EMU SIB. **disease resistance:** Leaf and stem rust. Winter Annual. Cultivated. Seed.
- PI 519213 **origin:** Hungary. **cultivar:** MCV 620-84. **pedigree:** KAVKAZ/ZG 5994/2/BEZOSTAIA DWARF/ARTHUR. **disease resistance:** Powdery mildew and stem rust. Winter Annual. Cultivated. Seed.
- PI 519214 **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 519215 **origin:** Hungary. **cultivar:** ZLATNA DOLINA/TISZATAJ. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519216 **origin:** Bulgaria. **cultivar:** ID 1005-6. **pedigree:** TP 114-65A/775-127. **disease resistance:** Yellow (stripe) rust and powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519217 **origin:** Bulgaria. **cultivar:** ID 1227-2. **pedigree:** ZG 4527-68/AURORA. **disease resistance:** Yellow (stripe) rust and powdery mildew. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519218 origin: Bulgaria. cultivar: ID 1634-3. pedigree: 698/AURORA/2/RUSSALKA/65-5/3/2810-64. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519219 origin: Bulgaria. cultivar: GP 5012-3. pedigree: RUSSALKA/NS 4R. disease resistance: Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519220 origin: Bulgaria. cultivar: GP 5459-336. pedigree: 5517-A5-5-1-P3/1646-20. disease resistance: Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519221 origin: Bulgaria. cultivar: GP 85-66-6. pedigree: 12558/4131-34/2/TIMGALEN. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519222 origin: Bulgaria. cultivar: TR 134-87. pedigree: NORIN 59/AURORA/2/BEZOSTAIA 4/LORO/3/BEZOSTAIA 1/183-157. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519223 origin: Bulgaria. cultivar: AK 214-4. pedigree: 200-99/BRKULYA 4. disease resistance: Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519224 origin: Bulgaria. cultivar: KM 630-84. pedigree: NADADORES 63/SAN PASTORE/2/TPR 354, KM 630-84. disease resistance: Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519225 origin: Hungary. cultivar: ILDIKO/BARANJKA. disease resistance: Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519226 origin: Bulgaria. cultivar: MS-H-74-38-40-1-1. pedigree: TP BLANC/TS/AURORA/BEZOSTAIA 1. disease resistance: Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519227 origin: Uruguay. cultivar: LE 2118. pedigree: ESTANSUELA HORNERO/CNT 8. disease resistance: Leaf and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519228 origin: Hungary. cultivar: GK BOGLAR/BUCSANYI 22. disease resistance: Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519229 origin: Hungary. cultivar: ARTHUR/SAVA/2/LIBELLULA. disease resistance: Stem rust. Winter Annual. Cultivated. Seed.



PI 518864 to 519876-continued

- PI 519230 **origin:** Hungary. **pedigree:** GKT 8001/SAVA/2/MARIS NIMROD/BURGAS 2. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519231 **origin:** Hungary. **cultivar:** VPM CROSS. **pedigree:** AEGILOPS VENTROCOSA/TRITICUM PERSICUM/\*MARNE/3/MOISSON H 1/4/AGUILEJA. **disease resistance:** Powdery mildew and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519232 **origin:** Pakistan. **cultivar:** CM 8288-A-3M-6Y-5M-1Y-1M-OY. **disease resistance:** Powdery mildew, yellow (stripe) rust, leaf and stem rust. Winter Annual. Cultivated. Seed.
- PI 519233 **origin:** Bulgaria. **cultivar:** FUNDULEA 113D. **disease resistance:** Leaf an yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519234 **origin:** Romania. **cultivar:** F 116 I 2(72). **pedigree:** PAVON SIB/LOVERIN 62. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519235 **origin:** Austria. **cultivar:** P 4821-80. **pedigree:** ZEGREB/PROBSTDORFER POKAL. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519236 **origin:** Austria. **cultivar:** P 4379-80. **pedigree:** RECORD/MEXICO 40/2/LP 10189. **disease resistance:** Powdery mildew and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519237 **origin:** Austria. **cultivar:** VM 628. **pedigree:** MEX 50 (MAYO 54/2/NORIN 10/BREVOR, CYMMYT SEL)/B21(MARTIN/K 3/2/HOHENHEIMER/3/ORO/4/ETOILE DE CHOISY)/2/US 60-43(CHINESE /HOPE/FULTZ PED, 4.494 A-1-8-5-6)/PRIEUR(90/ETOILE DE CHOISY /2/CAPPELLE DESPREZ)/4/AEGILOPA VENTRICOSA/ \*\*\*. **disease resistance:** Powdery mildew, leaf and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519238 **origin:** France. **cultivar:** VM 636. **pedigree:** V 268(14-5/2/B 21/2/2\*81-12)/TALENT(CHAMPLEIN/3/THATCHER/ 27/2/FORTUNATO)/2/ORALANDO/3/MEX 50 (MAYO 54/2/NORIN 10/BREV OR, CIMMYT SEL)/B 21(MATTIN/K 3/2/HOHENHEIMER/3/GRP/4/ETOILE DE CHOISY)/2/US 60-43(CHINESE/HOPE/FULTZ CROSS, \*\*\*. **disease resistance:** Powdery mildew and yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519239 **origin:** France. **cultivar:** VM 650. **pedigree:** US 60-43 (CHINESE/HOPE/FULTZ PED,PURDUE 4.494 A-1-8-5-6)/PIEUR(90/ETOILE DE CHOISY/2/CAPPELLE DESPREZ)/2/MARIS BEACON (CI 12633/5\* CAPPELLE DESPREZ/2/HYBRID 46/CAPPELLE DESPREZ /2\*PRESICENT MARCHAL)/4/AEGILOPS VENTRICOSA/ \*\*\*. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519240 **origin:** Bulgaria. **cultivar:** ID 711-3. **pedigree:** NAINARI 60/RANNAJA 12,ID. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519241 **origin:** Bulgaria. **cultivar:** ID 842-64. **pedigree:** AURORA/VZ 170. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519242 **origin:** Bulgaria. **cultivar:** GP 3357-146. **pedigree:** 313/BEZOSTAIA 1/2NS 314/SK. **disease resistance:** Leaf and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519243 **origin:** Bulgaria. **cultivar:** TR 76-76. **pedigree:** OGOSTA/KHAPLI/2/SUPRESA/AURORA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519244 **origin:** Bulgaria. **cultivar:** MS 73-155-136. **pedigree:** AURORA/TS/M 808. **disease resistance:** Leaf and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519245 **origin:** China. **cultivar:** 12938. **pedigree:** 43004. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519246 **origin:** China. **cultivar:** 1288. **pedigree:** 43007. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519247 **origin:** United States. **cultivar:** OK 78R8116. **pedigree:** CHINOFUZ/COMANCHE. **disease resistance:** Powdery mildew, yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519248 **origin:** United States. **cultivar:** SC 790741. **pedigree:** BLUEBOY II/T 72-60. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519249 **origin:** United States. **cultivar:** SC 792197. **pedigree:** CHINESE SPRING/AGROPYRON ELONGATUM/2/MEUKWASINE. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519250 **origin:** Hungary. **cultivar:** PROBUS/HUSTON 2/2/NS 12.01/SAVA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519251 **origin:** Canada. **cultivar:** VM 639. **pedigree:** COURTOT/ORLANDO/2/TALENT(CHAMPLEIN/3/THATCHER V 27/2/FORTUNATO). **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519252 **origin:** Hungary. **cultivar:** MV 25-83. **pedigree:** KAVKAZ/ZLATNA DOLINA. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519253 **origin:** Hungary. **cultivar:** MV 8-83. **pedigree:** ZG 4240-73/MARTONVASARI 4. **disease resistance:** Stem and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519254 **origin:** Yugoslavia. **cultivar:** ZG 33-82. **pedigree:** ZG 6877-61/TP 114-65A/2/ZG 5484-66. **disease resistance:** Powdery mildew and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519255 **origin:** Yugoslavia. **cultivar:** ZG 37-82. **pedigree:** ZG 6877-61/TP 114-65A/2/ZG 5484-66. **disease resistance:** Powdery mildew and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519256 **origin:** Yugoslavia. **cultivar:** ZG 70-82. **pedigree:** ZG 3814-65/CI 12632(ALLARD 52)/2/ZG 3814-65/ZG 5996-66. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519257 **origin:** Yugoslavia. **cultivar:** ZG 537-80. **pedigree:** KAVKAZ/GAINES/2/ZG 2109-70. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 519258 **origin:** Yugoslavia. **cultivar:** ZG 6631-78. **pedigree:** ZG 4968-65/TP 114-65A/2/ZG 3731-65/3/ZG 5900-66. **disease resistance:** Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519259 **origin:** Hungary. **cultivar:** IPPO 1. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519260 **origin:** Hungary. **cultivar:** IPPO 2. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519261 **origin:** Hungary. **cultivar:** IPPO 9. **disease resistance:** Powdery mildew and stem rust. Winter Annual. Cultivated. Seed.
- PI 519262 **origin:** Hungary. **cultivar:** IPPO 10. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519263 **origin:** Hungary. **cultivar:** IPPO 13. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519264 origin: Hungary. cultivar: IPPO 16. disease resistance: Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519265 origin: Hungary. cultivar: IPPO 17. disease resistance: Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519266 origin: Hungary. cultivar: IPPO 26. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519267 origin: Romania. cultivar: TRANSELVANIA 1, TURDA 141. pedigree: US 60-43/AURORA/2/FIORELLO/BEZOSTAIA 1. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519268 origin: Romania. cultivar: FUNDULEA 133. pedigree: TOLUCA SIB/CO 652142/3/MENGA VI/SIETE CERROS /2/JARAL/SIETE CERROS/4/PRI BI. disease resistance: Stem and leaf rust. Winter Annual. Cultivated. Seed.
- PI 519269 origin: Chile. cultivar: TALAFEN. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519270 origin: Chile. cultivar: T 6219, CAR 2422. pedigree: CAR 487/3/CIANO\*2/2/SONORA 64/KLEIN RENDIDOR,T 6319-OT-OT-4T. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519271 origin: Chile. cultivar: CAR 2242. pedigree: RIEBESEL 47-51/IBIS/2/FLEVINA, T 4816-13T-4T-1T-5T. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519272 origin: Chile. cultivar: CAR 2287. pedigree: CAR 451/CAR 487.T 5396-1T-0T-5T. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519273 origin: Chile. cultivar: CAR 2352. pedigree: NAP HAL/ATLAS 66,N 1-0T-OT-2T. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519274 origin: Chile. cultivar: CAR 2277. pedigree: CAR 487/CAR 681,T 5839-1T-0T-3T. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519275 origin: Chile. cultivar: CAR 2335. pedigree: HILGENDORF/2/CAR 873/HEINE VII,T 5820-1T-0T-6T. disease resistance: Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519276 **origin:** Chile. **cultivar:** CAR 2337. **pedigree:** HILGENDORF/2/CAR 873/HEINE VII,T 5820-1T-0T-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 72.428/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 518864 to 519876-continued

- PI 519286 **origin:** United States. **cultivar:** MON 753787. **pedigree:** PONCHEAU/5/KENTANA 54A/2/NORIN 10/BREVOR/3/KENTANA 54B/4/NARINO 59. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519287 **origin:** United States. **cultivar:** SWM 730627\*-2H-1S-1H-OP. **pedigree:** ZG 7980-69/2/BUEBIRD/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.

PI 518864 to 519876-continued

- PI 519297 **origin:** Austria. **cultivar:** P 8120-78. **pedigree:** KAVKAZ/2/RECORD/STRUBE 10307-20/3/MEXICO 40. **disease resistance:** Powdery mildew and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519298 **origin:** Austria. **cultivar:** P 8030-78. **pedigree:** PROBSTDORFER EXTREM/KAVKAZ. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519299 **origin:** Austria. **cultivar:** P 8080-78. **pedigree:** CENTURK/KAVKAZ. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519300 **origin:** Austria. **cultivar:** P 8200-78. **pedigree:** RECORD/MEXICO 40/2/KAVKAZ. **disease resistance:** Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 519301 **origin:** Austria. **cultivar:** P 4363-64-78. **pedigree:** DIPLOMAT/PURDUE 5517A-1-8-2-1-6/2/DIPLOMAT. **disease resistance:** Leaf rust and yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519302 **origin:** United States. **cultivar:** OK 75R3741. **pedigree:** ERA/DIBO/2/WALDRON/(CI 13232)COKER 55-9. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519303 **origin:** France. **cultivar:** VPM 1. **pedigree:** AEGILOPS VENTRICOSA/TRITICUM PERSICUM/2/3\*MARNE. **disease resistance:** Leaf and stem rust, yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519304 **origin:** Mexico. **cultivar:** TECIA 79. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 519305 **origin:** Mexico. **cultivar:** ZARAGOZA 75. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 519306 **origin:** France. **cultivar:** CHAMPLEIN/ARONDEL 68. **disease resistance:** Isoline. Winter Annual. Cultivated. Seed.
- PI 519307 **origin:** Greece. **cultivar:** G 78310-9-3. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519308 **origin:** Mexico. **cultivar:** 19008-52M-4Y-4M-2Y-100C. **pedigree:** LERMA ROJO 64/SONORA 64. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519309 **origin:** Chile. **cultivar:** TEMU 193-82. **pedigree:** TEMU 179-74/8/MAYO 54/3/NORIN 10/BREVOR/2/YAQUI 50/4/KLEIN LINC/5/CAPPELLE DESPREZ/6/BUHO/7/MONCHO SIB,T 12990-T-4P-3T. **disease resistance:** Yellow (stripe) rust and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519310 **origin:** Chile. **cultivar:** T 12942-T-5P-2T, TEMU 192-82. **pedigree:** BUDIFEN/2/KAVKAZ/UP 301. **disease resistance:** Stem rust and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519311 **origin:** Egypt. **cultivar:** L1517-2988. **pedigree:** REGENT/2\*MOKHTAR(GIZA 148)/4/(L1167-68)HINDI 90/KENYA B256G (GIZA 139)/3/PILOT/MIDA/2/C112316. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519312 **origin:** Mexico. **cultivar:** 21229-4M-1T-1M-1T. **pedigree:** TEZANOS PINTOS PRECOZ-100Y/12300. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519313 **origin:** Australia. **cultivar:** TR 264. **pedigree:** GAMENYA\*2/3/(1957 ISWRN-189) MARIA ESCOBAR\*2/NEWTATCH/2/WILLET,SUII.60.214. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519314 **origin:** Mexico. **cultivar:** AZTECA,IXM-V-215. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519315 **origin:** Mexico. **cultivar:** AZTECA F 67,LVII R V-1417. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519316 **origin:** Mexico. **cultivar:** BAJIO F 67,LVIIR V.1415. **disease resistance:** Yellow (stripe) rust, leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519317 **origin:** Mexico. **cultivar:** BAJIO F 67,LXR.V.1481. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519318 **origin:** Mexico. **cultivar:** 23584-14M-7Y-0M. **pedigree:** CIANO/2/SONORA 64/KLEIN RENDIDOR. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519319 **origin:** Chile. **cultivar:** TEMU 187-82. **pedigree:** HUENUFEN/BLUEJAY SIB,T 12925-T-1P-1T. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.



PI 518864 to 519876-continued

- PI 519320 **origin:** Mexico. **cultivar:** HM-1105-8Y-2M-1R. **pedigree:** KLEIN PETISO/RAFAELA\*2/2/TEZANOS PINTOS PRECOZ/SONORA 64. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519321 **origin:** United States. **cultivar:** D 661117. **pedigree:** BRAWLEY 180/WELLS/2/LANGDON. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519322 **origin:** United States. **cultivar:** ND12-11. **pedigree:** FRONDOSO/ND 42/2/ND 42/FRONDOSO. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519323 **origin:** United States. **cultivar:** ND 13-137. **pedigree:** JUSTIN/ND 81/2/ND 269. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519324 **origin:** United States. **cultivar:** ND 12-14. **pedigree:** JUSTIN/ND 142. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519325 **origin:** United States. **cultivar:** HRS-6. **pedigree:** JUSTIN/ND 81. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519326 **origin:** United States. **cultivar:** HRS-19. **pedigree:** ND 406/JUSTIN. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519327 **origin:** Australia. **cultivar:** TR 274. **pedigree:** GAMENYA/2/3\*GABO/CHARTER/4/THATCHER/SAINT CLAIR/2/MAYO 48/3/ 3\*GABO/KHAPSTEIN,SUII.61.124. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519328 **origin:** Australia. **cultivar:** TR 277. **pedigree:** GAMENYA/2/3\*GABO/CHARTER/4/THATCHER/SAINT CLAIR/2/MAYO 48/3/ 3\*GABO/KHAPSTEIN,SUII.61.124. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519329 **origin:** Australia. **cultivar:** TR 294. **pedigree:** GABO\*3/CHARTER/2/2\*GAMENYA/4/THATCHER/SAINT CLAIR/2/MAYO 48/3/3\*GABO/CHARTER,SUII.61.157. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519330 **origin:** Chile. **cultivar:** TEMU 182-82. **pedigree:** TEMU 47-76/CIGUENA,T 12847-T-2P-2T. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519331 **origin:** Chile. **cultivar:** TEMU 166-82. **pedigree:** PAVON SIB/MANELLA,T 12618-T-5P-1T. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519332 **origin:** Colombia. **cultivar:** 12193-7T-1B-5T,FAO 25.319.  
**pedigree:** FRONTANA/KENYA 58/2/NEWTATCH/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 519335 **origin:** Colombia. **cultivar:** 15385-3B-1T-2B,FAO 25.297.  
**pedigree:** SELECTION 5/3/KENYA 58/NEWTATCH/FRONTANA,PM.7.  
**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 519343 **origin:** Mexico. **cultivar:** 22339-9M-3T-1M-5R. **pedigree:** NARINO 59/3/PENJAMO/GABO/2/TEZANOS PINTOS PRECOZ/KNOTT 2. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519344 **origin:** Mexico. **cultivar:** 23278-4R-3M-2R. **pedigree:** LERMA ROJO/2/TEZANOS PINTOS PRECOZ/3\*ANAHUAC E/4/KENTANA /BAGE/2/FRONTANA/GENERAL URQUIZA/3/KENYA 58/NEWTATCH/2/FROCOR. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519345 **origin:** Mexico. **cultivar:** 23451-3M-4Y. **pedigree:** INIA/3/SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519346 **origin:** Mexico. **cultivar:** 23468-16M-1T. **pedigree:** SONORA 64/2/6\*SELKIRK E/3\*ANDES E/3/TEZANOS PINTOS PRECOZ/ SONORA 64. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519347 **origin:** Mexico. **cultivar:** 23584-14M-7Y-0. **pedigree:** CIANO SIB/2/SONORA 64/KLEIN RENDIDOR. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519348 **origin:** Mexico. **cultivar:** 23582-1M-7Y-0. **pedigree:** CIANO SIB/SONORA 64. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519349 **origin:** Mexico. **cultivar:** 23584-3M-6Y-0. **pedigree:** CIANO SIB/2/SONORA 64/KLEIN RENDIDOR. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519350 **origin:** Mexico. **cultivar:** 23584-3M-4Y. **pedigree:** CIANO SIB/2/SONORA 64/KLEIN RENDIDOR. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519351 **origin:** Mexico. **cultivar:** 23584-3M-9Y. **pedigree:** CIANO SIB/2/SONORA 64/KLEIN RENDIDOR. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519352 **origin:** Mexico. **cultivar:** II-26478-7Y-8M-OY. **pedigree:** INIA/23584,PC17. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519353 **origin:** Mexico. **cultivar:** II-26478-7Y-9M-OY. **pedigree:** INIA/23584,PC18. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519354 **origin:** Mexico. **cultivar:** II-26478-7Y-10M-OY. **pedigree:** INIA/23584,PC19. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519355 **origin:** Mexico. **cultivar:** II-23584-15Y-6M-4Y-0M,PC6. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519356 **origin:** Mexico. **cultivar:** II-23584-18M-10Y-2M-1Y-1M-OY, PC66. **pedigree:** CIANO SIB/2/SONORA 64/KLEIN RENDIDOR/3/8156 B,PC66. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519357 **origin:** Mexico. **cultivar:** II-23584-18M-10Y-2M-3Y-1M-OY. **pedigree:** CIANO SIB/2/SONORA 64/KLEIN RENDIDOR/3/8156. **disease resistance:** Leaf and stem rust, yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519358 **origin:** Mexico. **cultivar:** II-26478-32Y-7M-OY. **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-OM. **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-OM. **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-OY. **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-0Y.  
**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-0Y.  
**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-IM-0Y. **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-0Y. **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-4M-4Y-100B-500Y-OM. **pedigree:** CEB 148/2/RON/CHANATE/3/BUEBIRD/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-0Y. **pedigree:** 23584/CIANO SIB. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519375 **origin:** Mexico. **cultivar:** II-27139-57M-OY. **pedigree:** SONARA 64/KLEIN RENDIDOR/3/CIANO 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/CIANO 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/CIANO 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/CIANO/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 VARIETY 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/BUEBIRD/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.

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. **cultivar:** KAVKAZ/HYBRID DELHI 2009. **pedigree:** SWM 2984-1M-1Y-1M-2Y-OM-OMM. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519388 **origin:** United States. **cultivar:** 65-12-101. **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 519397 **origin:** United States. **cultivar:** HRS-12. **pedigree:** JUSTIN/ND 264. **disease resistance:** Powdery mildew, stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519398 **origin:** United States. **cultivar:** S 6531. **pedigree:** JUSTIN/FORTUNA. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519399 **origin:** Turkey. **cultivar:** RON. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519400 **origin:** United States. **cultivar:** HARD RED SPRING 8. **pedigree:** JUSTIN/ND 142. **disease resistance:** Stem and leaf rust, yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519401 **origin:** United States. **cultivar:** HARD RED SPRING 3. **pedigree:** JUSTIN/ND 396. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519402 **origin:** United States. **cultivar:** S 6534. **pedigree:** JUSTIN/FORTUNA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519403 **origin:** Canada. **cultivar:** RL 4255. **pedigree:** MANITU\*4/2/AFRICA 43/3\*THATCHER/3/MANITOU\*5/2/EXCHANGE /3\*THATCHER/5/RL 4204\*2/3/MANITOU\*3/2/WEBESTER/4\*THATCHER/4/MANITOU\*5/2/CENTENARIO/6\*THATCHER. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519404 **origin:** Colombia. **cultivar:** 12193-7T-1B-2T-2B-1T,FAO 25.309. **pedigree:** FRONTANA/2/KENYA58/NEWTATCH/3/2\*BONZA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519405 **origin:** Colombia. **cultivar:** 15986-9T-2B-2T,FAO 25.337. **pedigree:** LERMA/SELKIRK/3/2\*KENYA 58/2/NEWTATCH/FRONTANA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519406 **origin:** Colombia. **cultivar:** 12193-7T-1B-2T-1B,FAO 25.327. **pedigree:** FRONTANA/KENYA 58/2/NEWTATCH/3/2\*BONZA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.



PI 518864 to 519876-continued

- PI 519407 **origin:** Ecuador. **cultivar:** VI 8-2-2-7B-2T-1B-1T-1B,FAO 25.095. **pedigree:** FRONTANA/KENYA 58/2/NEWTATCH/3/2\*BONZA. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519408 **origin:** Ecuador. **cultivar:** FAO 25.096. **pedigree:** FROCOR/4\*BONZA,14260-5B-3T-2B. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519409 **origin:** Ecuador. **cultivar:** VI 89-2-22B-3T,FAO 25.100. **pedigree:** MEDITERRANEAN/2/MARIA ESCOBAR/EXCHANGE/THATCHER/3/3\*BONZA. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519410 **origin:** United States. **cultivar:** CO 534726. **pedigree:** SONORA 6/7/TRAPPER/5/SCOUT/4/QUIVIRA/3/TENMARQ/2/MARQUILLO/ ORO(CO 695552)/6/CENTURK, CO 534726. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519411 **origin:** Ecuador. **cultivar:** II-12025-9N-3E-5E,FAO 25.109. **pedigree:** DESCONOCIDO/FROCOR. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519412 **origin:** Ecuador. **cultivar:** II-12025-3E-4E-1E-1E,FAO 25.110. **pedigree:** DESCONOCIDO/FROCOR. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519413 **origin:** Ecuador. **cultivar:** III-100-2T.5B-2T-1B-2T,FAO 25.114. **pedigree:** SUPREMO/2/KENYA/YAQUI/3/FROCOR. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519414 **origin:** Ecuador. **cultivar:** II.12380-23N-1E-5E-1E-1E-1E,FAO 25.116. **pedigree:** FROCOR/KENYA AD/2/GABO/3/BONZA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519415 **origin:** Peru. **cultivar:** II-13831-3J-3J-2J-3L-L-J-1CZ. **pedigree:** YAQUI 53/3/FROCOR/FRONTANA/YAQUI. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519416 **origin:** Ecuador. **cultivar:** II-11613-6N-1E-2N-2E-12-1E,FAO 25.117. **pedigree:** SALLES/MCMURACHY/2/MAYO/3/MIDA/2/KENYA 117A/FRONTANA/4/FRONTANA/2/KENYA 58/NEWTATCH. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

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/NEWTATCH/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 CHOISY(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 518864 to 519876-continued

- PI 519428 **origin:** United States. **cultivar:** ND 16-156. **pedigree:** WALDRON/GHA/3/ND 102/ND 81/WISCONSIN 261. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519429 **origin:** United States. **cultivar:** ND 16-222. **pedigree:** ND 102/ND 81/2/II.54.45. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519430 **origin:** United States. **cultivar:** ND 16-349. **pedigree:** ND 441 SIB\*3/II.54-45. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519431 **origin:** United States. **cultivar:** ND 16-268. **pedigree:** FO 21\*3/TRITICUM DURUM/3/JUSTIN/2/CONLEY/ND 122. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519432 **origin:** United States. **cultivar:** ND 16-447. **pedigree:** ND 441 SIB\*3/2/T 1673/KENTANA 48. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519433 **origin:** Egypt. **cultivar:** L 1524-1788. **pedigree:** HINDI 90/KENYA B.256.G(GIZA 139)/5/(L 1385-3376) GIZA 135/4/(L 1167-109) HINDI 90/KENYA B.256.G(GIZA 139) /3/PILOT/MIDA/2/CI 12316. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519434 **origin:** Brazil. **cultivar:** PF 82192. **pedigree:** NOBRE\*3/AGENT/2/NOBRE\*3/ALONDRA. **disease resistance:** Yellow (stripe) rust, stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519435 **origin:** United States. **cultivar:** D 6714. **pedigree:** LANGDON\*2/ST 464/2/LEEDS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519436 **origin:** Yugoslavia. **cultivar:** ZG 7998-66. **pedigree:** SAN PASTORE/HEINE VII/4/BOBIN/GAZA/2/BOBIN/3/PAWNEE. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519437 **origin:** Mexico. **cultivar:** 27572-2M-BY-OM. **pedigree:** JORI S/5/LD 357 ENANO/2/2\*TEHUACAN/TREMES MOLLE ENANO/3/\*2/ TEHUACAN/4/ZENATI/BONTEILLE/2/WELLS. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

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-OY. **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 S/3/THATCHER\*3/2\*FRONTANA/2/KENYA 58/NEWTATCH, PC 29. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- 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:** BTRWDR, (SR WDR-1). **pedigree:** BAART/WALDRON(MN SEL). **disease resistance:** Yellow (stripe) rust, powdery mildew, stem rust. SR Isaline. Spring Annual. Cultivated. Seed.
- PI 519444 **origin:** United States. **cultivar:** D 6714. **pedigree:** LANGDON\*2/ST 464/2/LEEDS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519445 **origin:** United States. **cultivar:** D 6821. **pedigree:** 61130/LEEDS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519446 **origin:** Peru. **cultivar:** II-4290-1L-1L-3J-2CZ-2CZ. **pedigree:** CHINESE/AGROPYRON ELONGATUM(PW 327)/2/FRONTANA/KENYA 58/ NEWTHATCH(II-50-18). **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519447 **origin:** Peru. **cultivar:** II-1322-1J-1L-L-J-2CZ-2CZ.  
**pedigree:** II-53-525/3/FRONTANA/KENYA 58/NEWTATCH/2/NORIN  
10/BREVOR. **disease resistance:** Stem and leaf rust.  
Spring Annual. Cultivated. Seed.
- 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/ NEWTATCH(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/ NEWTATCH(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-1J-5CZ-1CZ.  
**pedigree:** FRONTANA/KENYA  
58/NEWTATCH(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-1-J-4CZ-1CZ.  
**pedigree:** MARIE ESCOBAR/H 44/MARQUIS/KENYA  
338.A.A.1A.2/4/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.  
**pedigree:**  
FROCOR/MCMURACHY/2/KENTANA/YAQUI/3/908/FRONTANA/A8.  
**disease resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 519457 **origin:** Mexico. **cultivar:** 22339-15M-1T-1M-4R. **pedigree:**  
NARINO 59-100Y/3/PENJAMO 62/GABO/2/TEZANOS PINTOS PRECOZ/  
KNOTT #2. **disease resistance:** Yellow (stripe) rust, stem  
and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519458 **origin:** Mexico. **cultivar:** 22339-9M-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 519459 **origin:** Mexico. **cultivar:** 22417-16M-1Y-2M-3R. **pedigree:**  
NAPO 63/TABARI. **disease resistance:** Stem rust. Spring  
Annual. Cultivated. Seed.
- PI 519460 **origin:** Mexico. **cultivar:** 22417-5M-1Y-3M-2Y. **pedigree:**  
NAPO 63/TABARI. **disease resistance:** Yellow (stripe) rust  
and stem rust. Spring Annual. Cultivated. Seed.
- 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.  
Spring Annual. Cultivated. Seed.
- PI 519462 **origin:** Peru. **cultivar:** NARINO 59/3/FRONTANA/2/KENYA  
58/NEWTATCH. **pedigree:** NARINO 59/3/FRONTANA/2/KENYA  
58/NEWTATCH. **disease resistance:** Yellow (stripe) rust  
and stem rust. Spring Annual. Cultivated. Seed.
- PI 519463 **origin:** Zimbabwe. **cultivar:** LIMPOPO. **pedigree:**  
LIMPOPO, SONORA 64/2/TEZANOS PINTOS PRECOZ/NAINARI  
60/TOKWE. **disease resistance:** Stem rust. Spring Annual.  
Cultivated. Seed.
- PI 519464 **origin:** Zimbabwe. **cultivar:** RUSAPE. **pedigree:**  
KAVKAZ/BUHO/2/KALANSONA/BLUEBIRD. **disease resistance:**  
Stem rust, yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 519465 **origin:** Zimbabwe. **cultivar:** SA 79003-9-2. **pedigree:**  
ZARAGOZA 75/TRIFEN SIB. **disease resistance:** Stem rust.  
Spring Annual. Cultivated. Seed.
- 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.  
Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519467 **origin:** Mexico. **cultivar:** 22346-18M-2Y-2M-3R. **pedigree:** WILLET ENANO/NARINO 59/3/SONORA 64A/2/TEZANOS PINTOS PRECOZ/ YAQUI 54. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519468 **origin:** Mexico. **cultivar:** 22373-2M-1Y-3M-3T. **pedigree:** SONORA 64A/2/TEZANOS PINTOS PRECOZ/NAINARI 60/3/TEZANOS PINTOS PRECOZ/ANDES 64A. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519469 **origin:** Syria. **cultivar:** EGYPT LOCAL 8. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519470 **origin:** United States. **cultivar:** ND 602. **pedigree:** LEW/2/TIOGA\*3/F0 629/3/TIOGA/RL 6043. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519471 **origin:** United States. **cultivar:** ND 604. **pedigree:** LEN/2/BUTTE/ND 526. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519472 **origin:** United States. **cultivar:** ND 606. **pedigree:** SU 28-1\*2/3/LEW/2/TIOGA\*2/RL 6043. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519473 **origin:** United States. **cultivar:** ND 608. **pedigree:** LEN/2/RL 4352-1/ND 574. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519474 **origin:** United States. **cultivar:** ND 609. **pedigree:** LEN/PI 166308/2/LEN. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519475 **origin:** United States. **cultivar:** ND 610. **pedigree:** ND 526/KITT/2/BUTTE. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519476 **origin:** United States. **cultivar:** ND 547. **pedigree:** OLAF/ND 496. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519477 **origin:** United States. **cultivar:** CHINESE/AEGILOPS SPELTOIDES. **disease resistance:** Stem rust, yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519478 **origin:** United States. **cultivar:** ND 6733. **pedigree:** ND 561/LEEDS, C71 HR. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519479 **origin:** United States. **cultivar:** ND 507. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519480 **origin:** United States. **cultivar:** ND 7224. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519481 **origin:** United States. **cultivar:** S 69-6. **pedigree:** FORTUNA/MANITOU. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519482 **origin:** United States. **cultivar:** D 7733. **pedigree:** D 72114/EDMORE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519483 **origin:** Australia. **cultivar:** II-58-383-8.1.1.3. **pedigree:** MENGA VI/3/SPICA/KODA/2/GABO, KENYA SEL. B. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519484 **origin:** Colombia. **cultivar:** 12584-8B-2T-3B1T,FAO 26.019. **pedigree:** FRONTANA/YAQUI/2/THATCHER/3/LICOYAN/4/KENYA AD/GABO/5/ FRONTANA/YAQUI. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519485 **origin:** United States. **cultivar:** D 7798. **pedigree:** D 71110/EDMORE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519486 **origin:** United Kingdom. **cultivar:** TP 241-2. **pedigree:** PEKO/THATCHER/JUFY I. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519487 **origin:** United Kingdom. **cultivar:** TP 250-2. **pedigree:** CHINESE 166/PEKO/JUFY I. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519488 **origin:** Colombia. **cultivar:** 13895-5T-1B-1T,FAO 26.029. **pedigree:** SALLES/2/MCMURACHY/MAYO/3/3\*BONZA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519489 **origin:** Colombia. **cultivar:** VI 121.2.13B.2T.2B,FAO 26.031. **pedigree:** YAQUI/KENYA 58/2/NEWTATCH/3/2\*BONZA,FAO 26.031. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519490 **origin:** Colombia. **cultivar:** 15648-3T.1B.2T. **pedigree:** HINDI 62/PILOT/2/MIDA/3/4\* BONZA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.



PI 518864 to 519876-continued

- PI 519491 **origin:** Colombia. **cultivar:** VI 91.2.32.2T.1B.2T. **pedigree:** NEWTHATCH/3\* BONZA,FAO 26.034. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519492 **origin:** Colombia. **cultivar:** VI.8.2.2.2.7T.1T.2B. **pedigree:** FRONTANA/KENTANA/2/NEWTHATCH/3/4\*BONZA,FAO 26.035. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519494 **origin:** Brazil. **cultivar:** PF 82200. **pedigree:** NOBRE\*3/AGENT/2/NOBRE\*3/ALONDRA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519495 **origin:** Colombia. **cultivar:** II-18387-1.F. **pedigree:** BONZA SIB/4/FRONTANA/2/THATCHER/TRIGO GLUTINOSA/3/MENTANA/5/2\*LERMA/2/SELKIRK/LERMA/3/WISCONSIN 245/4/MENKEMEN 626. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519496 **origin:** Kenya. **cultivar:** 1198 A.2.A.1. **pedigree:** CI 12632/3\*CERES R. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519497 **origin:** Kenya. **cultivar:** 12049E.1.C.1. **pedigree:** CI 12632/3\*KENYA 354 P. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519498 **origin:** Kenya. **cultivar:** 1203 D.1.S.1. **pedigree:** CI 12632/3\*RIO NEGRO. **disease resistance:** Stem rust, yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519499 **origin:** Kenya. **cultivar:** 4545 L.14.D.3. **pedigree:** TAMA/2/CI 12633/2\*DEAD. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519500 **origin:** Kenya. **cultivar:** 4545 L.14.D.2. **pedigree:** TAMA/2/CI 12633/2\*DEAD. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519501 **origin:** Kenya. **cultivar:** 1044A.1.A.4. **pedigree:** MIDA/MCMURACHY/2/EXCHANGE/3/CERES R64. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519502 **origin:** Peru. **cultivar:** OLLANTA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519503 **origin:** Egypt. **cultivar:** L 1360-3838. **pedigree:** GIZA 139/GABO. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519504 **origin:** Brazil. **cultivar:** PF 81191. **pedigree:** BH 1146\*3/ALONDRA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519505 **origin:** United States. **cultivar:** ND 501. **pedigree:** WALDRON/POLK. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519506 **origin:** United States. **cultivar:** ND 506. **pedigree:** ND 140/ND 363. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519507 **origin:** United States. **cultivar:** ND 71-11-115. **pedigree:** JUSTIN\*2/4/ND 259/CONLEY/2/CONLEY/ND 122/3/JUSTIN/5/WALDRON. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519508 **origin:** United States. **cultivar:** ND 71-13-1216. **pedigree:** ND 476/ND 321. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519509 **origin:** United States. **cultivar:** ND 71-12-12-104. **pedigree:** ND 442 SIB\*3/2/T 1673/3\*KENTANA 48. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519510 **origin:** United States. **cultivar:** ND 71-12-108. **pedigree:** WALDRON SIB\*3/2/WHEAT RYE TRANSLOCATION 238/5\*JUSTIN. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519511 **origin:** United States. **cultivar:** ND 71-12-109. **pedigree:** JUSTIN/THATCHER\*3/2/CI 12632/3\*RENOWN. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519512 **origin:** United States. **cultivar:** ND 71-12-111. **pedigree:** ND 373\*3/GIZA HEGAZY AHMER. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519513 **origin:** United States. **cultivar:** S 97-10. **pedigree:** WORLD SEEDS 1812/SHORTANA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519514 **origin:** United States. **cultivar:** ND 71-12-134. **pedigree:** ND 457\*3/TRITICUM DURUM. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

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\*THACTHER. **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/WISCONISN 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.  
**pedigree:** JUSTIN/2/CONLEY/ND 122\*3/3/GIZA HEGAZY AHMER/4/SUWON 92. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519521 **origin:** United States. **cultivar:** ND 71-14-1284.  
**pedigree:** WALDRON\*3/2/T 1673/3\*KENTANA 48/3/WALDRON SIB/WISCONSIN 261. **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. **pedigree:** OROFEN \*3/6/(4160) SUPREMO/MENTANA/2/GABO/5/THATCHER/QUERETARO/2/KENYA/MENTANA/4/GABO/7/YAKTANA 54/2/NORIN 10/BREVOR/4/2\* (C14) NEWTHATCH/MARROQUI/2/KENTANA/MENTANA/3/FRONTANA/8/TIMSTEIN/CHINESE 166/2/KENYA FARMER/4/LERMA/. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519525 **origin:** Chile. **cultivar:** A-3697-3P-1P-1P. **pedigree:** PLATIFEN/4/II-50-18/2/NORIN 10/BALILLA/3/YAQUI 54. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519526 **origin:** Chile. **cultivar:** S-192-8P-2P-2P. **pedigree:** VILUFEN/\*3RULEFEN. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519527 **origin:** Uruguay. **cultivar:** W 80-3446. **pedigree:** ND 457\*3/TRITICUM DURUM/2/PATO GABOTO. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519528 **origin:** Chile. **cultivar:** A-4898-1P-4P-2P. **pedigree:** CENTRIFEN SIB/5/TOQUIFEN SIB/4/NEWTATCH/MARROQUI/2/KENYA/ MENTANA (908) /3/FRONTANA A7. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519529 **origin:** Syria. **cultivar:** CD 21838-1AP-1AP-OAP. **pedigree:** PELICANO SIB/RUFF SIB/2/GAVIOTA SIB/D 6715/3/SHWA SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519530 **origin:** Uruguay. **cultivar:** LE 2092. **pedigree:** PREL/L 10/2/ESTANZUELA TARARIRAS. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519531 **origin:** Chile. **cultivar:** A 4767-51P-2P-2P. **pedigree:** PLATIFEN/2/RULIFEN\*2/TOQUIFEN. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519532 **origin:** Chile. **cultivar:** A 4783-53P-2P-2P. **pedigree:** PLATIFEN/4/OROFEN/YAKTANA 54/2/NORIN 10/BREVOR/3/LERMA ROJO/ MENFLO. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519533 **origin:** Chile. **cultivar:** A 4815-51P-1P-1P. **pedigree:** HUELQUEN/4/OROFEN/YAKTANA 54/2/NORIN 10 BREVOR/3/LERMA ROJO/ MENFLO. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519534 **origin:** Chile. **cultivar:** A 4840-56P-1P-2P. **pedigree:** HUELQUEN/5/RULOFEN/4/FRONTANA/2/KENYA/NEWTATCH/3/NORIN 10/ BREVOR. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519535 **origin:** Chile. **cultivar:** A 4926-70P-1P-1P. **pedigree:** CENTRIFEN SIB/5/RULOFEN/4/FRONTANA/KENYA/2/NEWTATCH/3/NORIN 10/BREVOR. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- 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:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519537 **origin:** Chile. **cultivar:** A 4766-51P-3P-2P. **pedigree:** PLATIFEN/5/RULOFEN/4/FRONTANA/2/KENYA 58/NEWTATHXCH/3/NORIN 10/BREVOR. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- 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. Spring Annual. Cultivated. Seed.
- 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 rust. Spring Annual. Cultivated. Seed.
- PI 519541 **origin:** Syria. **cultivar:** CM 17904-B-3M-1Y-1Y-OSK. **pedigree:** PELICANO SIB/RUFF 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-OY. **pedigree:** GEDIZ SIB/BIT SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519544 **origin:** Mexico. **cultivar:** BRANT. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519545 **origin:** Mexico. **cultivar:** CAJEME 71. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- 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:** DWARF 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-OY-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/\*2FROCOR/FRONTANA/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-OY-115Y-OM.  
**pedigree:** BLUEBIRD/INIA. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519561 **origin:** Mexico. **cultivar:** 26591-1T-7M-OY-132Y-OM.  
**pedigree:** BLUEBIRD/INIA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519562 **origin:** Mexico. **cultivar:** 28339-17Y-1M-1Y-OM. **pedigree:** CIANO/INIA/2/BLUEBOY. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519563 **origin:** Mexico. **cultivar:** 30656-15M-1Y-1M-OY. **pedigree:** INA "S"/NAPO 63/2/2\*CALIDAD. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519564 **origin:** Mexico. **cultivar:** 30656-4T-1Y-1M-OY. **pedigree:** INA "S"/NAPO 63/2/2\*CALIDAD. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519565 **origin:** Mexico. **cultivar:** 28567-15Y-4M-1Y-1M-OY.  
**pedigree:** CALIDAD/CIANO "S"/2/CIANO/SONORA 64. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519566 **origin:** Syria. **cultivar:** CM 19742-D-5Y-1M-2Y-2Y.  
**pedigree:** GENERAL ROCA MAG SIB/SENATOR CAPPELLI/2/ST 464/3/CRANE SIB /4/GAVIOTA. **disease resistance:** Yellow (stripe) rust, stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519567 **origin:** Syria. **cultivar:** CD 16913-B-2M-2Y-3M-4Y-OM.  
**pedigree:** OYCA SIB/MAGH SIB/2/RUFF SIB/FLAMINGO SIB. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519568 **origin:** Syria. **cultivar:** CD 19606-D-5Y-3M-1Y-1B-1Y.  
**pedigree:** DACK SIB/GEDIZ SIB/2/USDA 575. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519569 **origin:** United States. **cultivar:** 61-130/LEEDS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519570 **origin:** Chile. **cultivar:** N998-1C-1C-2C. **pedigree:** MARNE DESPREZ/4/\*2YAKTANA 54/3/NORIN 10/BREVOR/2/KENTANA 54.  
**disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519571 **origin:** Chile. **cultivar:** N-1255-2C-2C. **pedigree:** OROFEN/2/YAKTANA 54/3/NORIN 10/BREVOR/4/LERMA ROJO/5/MENFLO/6/SPRING WHEAT 467/GABO/2/LERMA/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/BREVOR/LERMA ROJO/5/2\* NEWTHATCH/MARROQUI/2/KENYA/MENTANA/3/FRONTANA(C-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/BREVOR/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/BREVOR/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/KENTANA 54A/2/NORIN 10/BREVOR 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/FRONTANA/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/BREVOR 21-1C/3/KENTANA 54B/4/NARINO 59. **disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.



PI 518864 to 519876-continued

- PI 519580 **origin:** Chile. **cultivar:** CH-7790-12P-9P-1P-1P. **pedigree:** RULOFEN/4/FROCOR/KENYA/2/NEWTATCH/3/NORIN 10/BREVOR. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519581 **origin:** Chile. **cultivar:** S-287-6P-2P-3P. **pedigree:** LEE\*2/KENYA FRAMER/3/YAKTANA 54/2/NORIN 10/BREVOR 24-1C. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519582 **origin:** Chile. **cultivar:** CH-7791-1P-8P-1P-1P. **pedigree:** RULOFEN/4/FRONTANA/KENYA/2/NEWTATCH/3/NORIN 10/BREVOR. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519583 **origin:** Chile. **cultivar:** S-118-27P-6P-4P. **pedigree:** THATCHER/SANTA CATALINA/2/MAYO 54\*2/4/MIDA/MCMURACHY/2/EXCHANGE/PLATIFEN. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519584 **origin:** Chile. **cultivar:** CH-4993-7P-1P-1P-2P-2P-1P. **pedigree:** MAYO 54/NORIN 10/2/YAQUI 50/3/KENYA/LINCOYAN. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519585 **origin:** Chile. **cultivar:** A-1334-2P-1P. **pedigree:** FROCOR/2/FRONTANA/YAQUI/4/2\* (4777) FROCOR/3/MCMURACHY/KENTANA/2/YAQUI 50/5/FROCOR/3/SALTO/2/MCMURACHY/WISCONSIN 245. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519586 **origin:** Chile. **cultivar:** CH-10076-9P-1P-2P-1P. **pedigree:** FROCOR/3/MCMURACHY/KENTANA/2/YAQUI 50 \*2/4/(4777) FRONTANA/2/KENYA 58/NEWTATCH/3/NORIN 10/BREVOR. **disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.
- PI 519587 **origin:** Chile. **cultivar:** 17606-1P-2P-3P-1P. **pedigree:** KENTANA 54A/NORIN 10/BREVOR 21-1C/KENTANA 54B/4/NARINO. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519588 **origin:** Chile. **cultivar:** CH-7817-1P-1P-4P-1P-1P. **pedigree:** TOQUIFEN. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519589 **origin:** Chile. **cultivar:** CH-6277-19-2P-4P-1P. **pedigree:** FRONTANA/2/KENYA 58/NEWTATCH (II-50-18)/3/VOGEL DWARF. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519590 **origin:** Chile. **cultivar:** N-818-3P-6P-2P. **pedigree:** VOGEL 8881/4/Frontana/2/3\*THATCHER (II-44-29)/2\*THATCHER. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519591 **origin:** Chile. **cultivar:** A-1254-4P-2P-1P. **pedigree:** ARABIAN/SERNAI CAICH/4/2\* YAKTANA 54/2/NORIN 10/BREVOR 21-1C /3/SINAI 2. **disease resistance:** Leaf and stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519592 **origin:** Chile. **cultivar:** A-1247-3P-2P-1P. **pedigree:** CANDEALFEN/ARABIAN/2/CI 7525-1H/3/CANDEALFEN/4/ARABIAN/SERNAI CAICH. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519593 **origin:** Chile. **cultivar:** CH-3002-7P-4P-2P-1P-2P. **pedigree:** CI 7805-1H/CAPELLI. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519594 **origin:** Chile. **cultivar:** LOBEIRO DE GRANO ESCURO. **pedigree:** CH-100-12-2-2-259. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519595 **origin:** Chile. **cultivar:** CH-3002-7P-3P-1PA. **pedigree:** CI 7805-1H/CAPELLI. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519596 **origin:** Chile. **cultivar:** A-3383-201P-3P-13P-1P. **pedigree:** CAPELLI/LAGDON DWARF (F4/LANGDON). **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519597 **origin:** Chile. **cultivar:** A-3976-5P-3P. **pedigree:** CAPELLI/6/ST 464/5/YAKTANA 54/2/NORIN 10/BREVOR 21-1C/3/3\* CAPELLI/GIZA/4/TEHUACAN. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519598 **origin:** Chile. **cultivar:** A-3308-2P-1P-1PA. **pedigree:** EGYPT 3728/2/3\* CAPELLI/GIZA. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519599 **origin:** Chile. **cultivar:** A-3388-201P-1P-3P-1P. **pedigree:** CAPELLI/LANGDON DWARF (F4/LANGDON). **disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.
- PI 519600 **origin:** Chile. **cultivar:** A-3430-201P-3P-2P-2P. **pedigree:** CANDEALFEN/LANGDON DWARF (F4/LANGDON). **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519601 **origin:** United Kingdom. **cultivar:** TP 231-5. **pedigree:** CHINESE 166/\*2 JUFY I. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519602 **origin:** United Kingdom. **cultivar:** TP 239-3. **pedigree:** PEKO/2\* JUFY I. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519603 **origin:** United Kingdom. **cultivar:** TP 241-2. **pedigree:** PEKO/THATCHER/JUFY I. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519604 **origin:** United Kingdom. **cultivar:** TP 250-2. **pedigree:** CHINESE 166/PEKO/JUFY I. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519605 **origin:** United Kingdom. **cultivar:** TP 253-2. **pedigree:** SVENNO/CHINESE 166/JUFY I. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519606 **origin:** United States. **cultivar:** S 9310. **pedigree:** WORLD SEEDS 1809/FORTUNA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519607 **origin:** United States. **cultivar:** S 56-10. **pedigree:** BONANZA/CENTANA. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519608 **origin:** Chile. **cultivar:** A4840-56P-9P-1P. **pedigree:** HUELQUEN/5/RULOFEN/4/FRONTANA/2/KENYA 58/NEWTATCH/3/NORIN 10/BREVOR. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519609 **origin:** Chile. **cultivar:** A4926-51P-3P-3P. **pedigree:** CENTRIFEN SIB/5/RULOFEN/4/FRONTANA/2/KENYA 58/NEWTATCH/3/ NORIN 10/BREVOR. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519610 **origin:** Chile. **cultivar:** A5164-1P-1P-2P. **pedigree:** HUELQUEN/5/\*2RULOFEN/4/FRONTANA/2/KENYA 58/NEWTATCH/3/NORIN 10/BREVOR. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519611 **origin:** Chile. **cultivar:** A5276-1P-2P-1P. **pedigree:** PLATIFEN/COLLAFEN SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519612 **origin:** Chile. **cultivar:** A5292-23P-1P-1P. **pedigree:** PLATIFEN/TOQUIFEN SIB. **disease resistance:** Yellow (stripe) rust, leaf rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519613 **origin:** Chile. **cultivar:** A4904-1P-1P-3P. **pedigree:** YAQUI 53/2/NORIN 10/BREVOR 26/3/2\*LERMA ROJO/4/FRONTANA/2/ KENYA 58/NEWTATCH/3/II-50-18/5/YAQUI 50. **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/THACTHER. **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. **pedigree:** E3728/2/\*3CAPELLI/GAZA/4/YAKTANA 54/2/NORIN 10/BREVOR/3/2\* BARRIGON YAQUI /5/TEHUACAN/4/YAKTANA 54/2/NORIN 10/BREVOR /3/\*2LANGDON 357. **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 YAQUI. **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. **pedigree:** YAKTANA 54/2/NORIN 10/BREVOR/3/2\*BARRIGON YAQUI/4/TEHUACAN/5 /ZENATI/BOUTEILLE/2/WELLS/5/STEWART 63/6/YAKTANA 54/2/NORIN 10/BREVOR/3/RASPINEGRO DE AGUILAS/\*4TEHUACAN. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519621 **origin:** Colombia. **cultivar:** VI-116-2-4B-1T-2B-1T. **pedigree:** YAQUI 53/2\*BONZA. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519622 **origin:** Colombia. **cultivar:** VI-91-2-2-40B-2T-1B. **pedigree:** NEWTHATCH/\*3BONZA. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519623 **origin:** Colombia. **cultivar:** 8363-1B-1T-3B. **pedigree:** FRONTANA/3/MIDA/2/KENYA 117A/SANTA CATALINA/4/KENYA. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519624 **origin:** Colombia. **cultivar:** VI-112-2-2-7T-4B-1T. **pedigree:** CI 12633(WISCONSIN 245)/3\*BONZA. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519625 **origin:** Colombia. **cultivar:** III-113-6-6B-3T-2B. **pedigree:** CI 12633(WISCONSIN 245)/555/2/2\*FROCOR. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519626 **origin:** Colombia. **cultivar:** VI-112-2-2-7T-2B-2T. **pedigree:** CI 12633(WISCONSIN 245)/3\*BONZA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519627 **origin:** Cyprus. **cultivar:** FAO 26.191. **pedigree:** SELECTION 520. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519628 **origin:** Ecuador. **cultivar:** VI-1027-2-2-19B-1T-2B. **pedigree:** TOUNSE/3\*BONZA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519629 **origin:** Ecuador. **cultivar:** VI-91-2-2-25B-6T-1B. **pedigree:** NEWTHATCH/3\*BONZA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519630 **origin:** Ecuador. **cultivar:** VI-64-2-2-GB-1T-1B-2T. **pedigree:** KENYA 58/MIDA/2/NEWTHATCH/3\*BONZA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519631 **origin:** Ecuador. **cultivar:** 18848-2E-2E-13-2E. **pedigree:** FRONTANA/THATCHER/2/2\*NARINO 59. **disease resistance:** Yellow (stripe) rust, stem rust. Spring Annual. Cultivated. Seed.
- PI 519632 **origin:** Syria. **cultivar:** 12899-2L-1AP-0AP. **pedigree:** OVIACHIC 65/COPPEI/2/FLAMINGO SIB. **disease resistance:** Yellow (stripe) 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. **disease resistance:** Stem rust. Spring Annual. Cultivated. 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. **disease resistance:** Stem rust. Spring Annual. Cultivated. 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. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519636 **origin:** Kenya. **cultivar:** 4266-R-1-B-2. **pedigree:** SOUTH AFRICA 43/WISCON SUPREMO. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519637 **origin:** Kenya. **cultivar:** 5987-5-7-8. **pedigree:** KENYA 360 F-8-D-3/2/HOPE/TIMSTEIN. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- 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. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519639 **origin:** Syria. **cultivar:** L 038-4AP-3AP-1AP-OAP. **pedigree:** OVICHIC 65/COPPEI/2/FLAMINGO SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519640 **origin:** Kenya. **cultivar:** 4301-F 4-B 4. **pedigree:** H 4416/CIENTO CINQUENTO. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519641 **origin:** Kenya. **cultivar:** 1198-A-2-A-2. **pedigree:** CI 12632/2\*CERES R 64. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519642 **origin:** Kenya. **cultivar:** 1198-A.2.A.1. **pedigree:** CI 12632/3\*CERES R. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519643 **origin:** Egypt. **cultivar:** L 1390-3238. **pedigree:** GIZA 139/GABO. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519644 **origin:** United States. **cultivar:** II-54-67. **pedigree:** MN 2824/3/Frontana/2/KENYA 58/NEWTATCH (II-50-17). **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519645 **origin:** Chile. **cultivar:** CM 33027-F12M-1Y-1M-1Y-1M-OY. **pedigree:** VEERY SIB,KAVKAZ/BLUEBIRD/2/KALYANSONA/BLUEBIRD. **disease resistance:** Stem and leaf rust, yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519646 **origin:** Chile. **cultivar:** K 4727. **pedigree:** AFRICA/MAYO 48/5/WI 245/SUPREMO 51/\*3FROCOR/Frontana/2/YAQUI/4/ANHINGA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519647 **origin:** United States. **cultivar:** ND III-6-125. **pedigree:** LD 393/DWARF 584. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519648 **origin:** United States. **cultivar:** LD 408. **pedigree:** NUGGET/LD. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519649 **origin:** Chile. **cultivar:** II 19659-9M-7Y-2M. **pedigree:** NADADORES 63/II-53-526-1Y. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519650 **origin:** United States. **cultivar:** ND 57-162. **pedigree:** LD 357\*2/2/CI 7513/LD 362. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519651 **origin:** United States. **cultivar:** ND 58-75. **pedigree:** LD 357/2/RL 1714/LD 357. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519652 **origin:** United States. **cultivar:** ND 58-312. **pedigree:** LD 382/2\*LANGDON. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519653 **origin:** Brazil. **cultivar:** R 100171-78,99431. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519654 **origin:** United States. **cultivar:** D 6962. **pedigree:** LEEDS/2/6113/LEEDS. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519655 **origin:** United States. **cultivar:** ND 175. **pedigree:** RL 2563/LEE/2/ND 40-2. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519656 **origin:** United States. **cultivar:** ND 59-149. **pedigree:** FRONTANA/KENYA/2/NEWTATCH (II-50-17)/3/ND 4/RESCUE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519657 **origin:** United States. **cultivar:** D 692. **pedigree:** 561/LEEDS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519658 **origin:** United States. **cultivar:** ND 511. **pedigree:** ND 373\*2/RL 4205/2/3\*ND 373/GIZA HEGAZY AHMER. **disease resistance:** Stem and leaf rust, yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519659 **origin:** United States. **cultivar:** ND 499. **pedigree:** JUSTIN\*2/4/ND 259/CONLEY/2/CONLEY/ND 122/3/JUSTIN/5/WALDRON. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519660 **origin:** United States. **cultivar:** ND 508. **pedigree:** ND 476/2/CONLEY/ND 122. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519661 **origin:** United States. **cultivar:** FROHBERG 12-105. **pedigree:** JUSTIN/ND 142/2/WISCONSIN 261. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519662 **origin:** United States. **cultivar:** FROHBERG 12-107. **pedigree:** ND 480/2/POLK/WISCONSIN 261. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519663 **origin:** United States. **cultivar:** FROHBERG 13-1084. **pedigree:** ND 494/4/ND 396/2/WHEAT RYE TRANSLOCATION 238/AGENT/3/ SUWON 92. **disease resistance:** Stem an leaf rust. Spring Annual. Cultivated. Seed.
- PI 519664 **origin:** Chile. **cultivar:** E 1172-8691-7E-2E-1E. **pedigree:** BUCKY/2/TOBARI/CIANO SIB,E. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519665 **origin:** Chile. **cultivar:** CM 33203-K-9M-9Y-4M-1Y-1M-2Y-OM. **pedigree:** BOBWHITE SIB. **disease resistance:** Stem and leaf rust, yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519666 **origin:** Chile. **cultivar:** CM 44321-A-1Y-3M-5Y-OM. **pedigree:** CONDOR SIB/ANAHUAC/2/CONDOR SIB/MUSALA SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.



PI 518864 to 519876-continued

- 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. **pedigree:** YAQUI 53/2/NORIN 10/BREVOR/3/2\* LERMA ROJO/5/OROFEN/4/YAKTAN YAKTANA 54/2/NORIN 10/BREVOR/6/MENFLO. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519683 **origin:** Chile. **cultivar:** A4920-52P-2P-2P. **pedigree:** YAQUI 53/2/NORIN 10/BREVOR/3/2\* LERMA ROJO/5/OROFEN/4/YAKTANA 54/2/NORIN 10/BREVOR/3/LERMA ROJO/6/MENFLO. **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:** A 12596-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. Spring 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. Spring Annual. Cultivated. Seed.
- PI 519691 **origin:** United States. **cultivar:** M6800152. **pedigree:** DURUM MUTANT 1203. **disease resistance:** Stem rust. Spring 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. Spring Annual. Cultivated. Seed.
- PI 519693 **origin:** United States. **cultivar:** MD 000118. **disease resistance:** Stem and yellow (stripe) rust. Spring 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. Spring 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. Spring Annual. Cultivated. Seed.
- PI 519696 **origin:** Australia. **cultivar:** K 235-18. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519697 **origin:** United States. **cultivar:** MN 6796. **pedigree:** II-61-6/ERA. **disease resistance:** Stem and leaf rust. Spring 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. Spring Annual. Cultivated. Seed.
- PI 519699 **origin:** United States. **cultivar:** MN 6864. **pedigree:** III-67-8/II-61-13. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519700 **origin:** United States. **cultivar:** MN 6898. **pedigree:** ERA/III 67-10. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519701 **origin:** United States. **cultivar:** MN 68165. **pedigree:** III-67-7/II 61-15. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519702 **origin:** United States. **cultivar:** MN 6955S. **pedigree:** ERA/BAJIO/2/NORTENO 66/ERA. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519703 **origin:** United States. **cultivar:** MN 6983S. **pedigree:** II-62-68/TOBARI 66/2/ERA/BAJIO 66. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519704 **origin:** United States. **cultivar:** MN 6985S. **pedigree:** II-62-68/TOBARI 66/2/FLETCHER/CIANO 67. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519705 **origin:** United States. **cultivar:** MN 69120S. **pedigree:** II-62-68/TOBARI 66/2/FLETCHER/CIANO. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519706 **origin:** United States. **cultivar:** MN 69124S. **pedigree:** II-62-68/TOBARI 66/2/FLETCHER/CIANO 67. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519707 **origin:** United States. **cultivar:** D 7025. **pedigree:** ND 6468/2/ND 61130/LEEDS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519708 **origin:** United States. **cultivar:** ND 523. **pedigree:** FAGO 11-125. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519709 **origin:** United States. **cultivar:** FAGO 13-1155. **pedigree:** ND 496 SIB/3/ND 487/FLETCHER/2/WHEAT RYE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519710 **origin:** Iran. **cultivar:** II 8047. **pedigree:** KLEIN COMETA/2/NEWTATCH/MENTANA/3/MENKEMAN 626(1879)/4/GI 1/5/KENYA 804-2/EGYPT NA 95/6/BONZA. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519711 **origin:** Iran. **cultivar:** LM72-14-57. **pedigree:** MB/SR. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519712 **origin:** Kenya. **cultivar:** 1346A2A1. **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. **cultivar:** KENYA 4496L.5.A.2. **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 SR6M 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. **cultivar:** KENY 4573 L.3.D.2. **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 518864 to 519876-continued

- 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/\*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-IM-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/CRANE 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 519735 **origin:** Mexico. **cultivar:** D 27617-18M-6Y-1M-OY.  
**pedigree:** COCORIT SIB. **disease resistance:** Yellow  
(stripe) rust. Stem and leaf rust. Spring Annual.  
Cultivated. Seed.
- PI 519736 **origin:** Mexico. **cultivar:** D 27582-5M-3Y-2M-OY.  
**pedigree:** FLAMINGO SIB. **disease resistance:** Yellow  
(stripe) rust. Leaf rust. Spring Annual. Cultivated.  
Seed.
- PI 519737 **origin:** Mexico. **cultivar:** D 27617-21M-300Y-OB.  
**pedigree:** COCORIT SIB. **disease resistance:** Yellow  
(stripe) rust. Stem rust. Spring Annual. Cultivated.  
Seed.
- PI 519738 **origin:** United States. **cultivar:** D 761. **pedigree:** D  
7233/EDMORE. **disease resistance:** Stem and leaf rust.  
Spring Annual. Cultivated. Seed.
- PI 519739 **origin:** Mexico. **cultivar:** 28339-17Y-4M-2Y-OM. **pedigree:**  
CIANO/INIA SIB/2/BUEBOY. **disease resistance:** Stem and  
leaf rust. Spring Annual. Cultivated. Seed.
- PI 519740 **origin:** Mexico. **cultivar:** 29696-26R-2M-2Y-OM. **pedigree:**  
INIA SIB/SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI  
54/3/CIANO 67. **disease resistance:** Stem rust. Spring  
Annual. Cultivated. Seed.
- PI 519741 **origin:** Mexico. **cultivar:** 30409-44R-1M-1Y-OM. **pedigree:**  
NARINO 59/PENJAMO 62/2/GABO/2/TEZANOS PINTOS  
PRECOZ/KNOTT#2/ 3/CALIDAD. **disease resistance:** Stem  
rust. Spring Annual. Cultivated. Seed.
- PI 519742 **origin:** Mexico. **cultivar:** 27139-6M-1Y-1M-1Y-OM.  
**pedigree:** RASPINEGRO DE AGUILAS  
ENANO/TEHUACAN/2/STILWATER/ANHINGA. **disease resistance:**  
Stem and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 519743 **origin:** Mexico. **cultivar:** 32633-4M-1Y-OM. **pedigree:**  
BAJIO 66/2/INIA/NAPO 63. **disease resistance:** Stem rust.  
Spring Annual. Cultivated. Seed.
- PI 519744 **origin:** Mexico. **cultivar:** 31314-47B-2Y-OM. **pedigree:**  
TOBARI 66/BAGDAD/2/KLEIN PETISO/RAFAELA/3/\*2 8256R.  
**disease resistance:** Stem rust. Spring Annual.  
Cultivated. Seed.
- PI 519745 **origin:** Mexico. **cultivar:** 27983-21Y-1M-6Y-OM-89Y.  
**pedigree:** NEW PUSA 876/PENJAMO 62/2/CIANO SIB/PENJAMO 62.  
**disease resistance:** Stem 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. Spring Annual. Cultivated. 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. Spring Annual. Cultivated. Seed.
- PI 519748 **origin:** Mexico. **cultivar:** 27298-6M-OY. **pedigree:** LIB 64/INIA/2/INIA/BLUEBOY. **disease resistance:** Stem rust and yellow (stripe) rust. Spring Annual. Cultivated. 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/UJORI SIB. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519750 **origin:** Mexico. **cultivar:** D31761-2L-OL. **pedigree:** BOOBY SIB/RD 119-2W-2Y. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. 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. Spring Annual. Cultivated. 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. Spring Annual. Cultivated. Seed.
- PI 519753 **origin:** Mexico. **cultivar:** D 31604-100L-OL. **pedigree:** ANHINGA SIB/2/CHRIST DE CHILE. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519754 **origin:** Mexico. **cultivar:** D 31564-5L-OL. **pedigree:** TORI SIB/ALBATROSS SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519755 **origin:** Mexico. **cultivar:** D 31544-1L-OL. **pedigree:** TORI SIB/BARRIGON YAQUI ENANO/\*5TEHUACAN. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. 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. **pedigree:** CRANE SIB/STEWART/2/GOLDEN BALL/3/STEWART/ETHIOPIA 464. **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. **pedigree:** TREMOS MOLLE ENANO/\*2TEHUACAN/3/ZENATI/BONTEILLE/2/WELLS/4/ BARRIGON YAQUI/180/3/LAKOTA/2/GIZA/220/5/61130. **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. **pedigree:** PLATIFEN/4/OROFEN/FRONTANA/KENYA/3/NEWTATCH/NORIN 10/5/BONANZA,A 14735-5P-1P-2P-2P. **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 518864 to 519876-continued

- 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/HUELOUEN, 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 519780 **origin:** United States. **cultivar:** D 72114. **pedigree:** 68112/WARD. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519781 **origin:** United States. **cultivar:** ND 526. **pedigree:** FA 12-127. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519782 **origin:** United States. **cultivar:** D 175. **pedigree:** D 6530/D 65114. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519783 **origin:** Mexico. **cultivar:** SWM 4589-7Y-18M-1Y-OM. **pedigree:** MYNA SIB. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519784 **origin:** United States. **cultivar:** EUREKE. **pedigree:** ERA/CHANCELLOR/2/CIANO 67/SONORA 64, SD 2185. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519785 **origin:** United States. **cultivar:** SD 2273. **pedigree:** OLAF/ND 510. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519786 **origin:** United States. **cultivar:** ND 525. **pedigree:** FA 11-119. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519787 **origin:** United States. **cultivar:** FA 12-123. **pedigree:** ND 487/5/WALDRON/3/AGENT/2/T 1673/3\*KENTANA 48/4/SUWON 92. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519788 **origin:** United States. **cultivar:** FA 14-1213. **pedigree:** WALDRON/BONANZA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519789 **origin:** United States. **cultivar:** FA 15-1032. **pedigree:** ND 152/ND 140/JUSTIN/3/LEEDS. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519790 **origin:** Uruguay. **cultivar:** 274-1-118. **pedigree:** BAGE/TEHUACAN/3/FRONTANA/KENYA 58/NEWTATCH/RL 4151. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519791 **origin:** Uruguay. **cultivar:** 266-4-148. **pedigree:** BAGE/TEHUACAN/3/FRONTANA/KENYA 58/NEWTATCH/RL 4151. **disease resistance:** Leaf 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. **cultivar:** 14.355. **pedigree:** FRONTANA/2/KENYA 58/NEWTATCH/3/NORIN 10/BREVOR/4/MULTIPLICACION 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:** MULTIPLICACION 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 519804 **origin:** United States. **cultivar:** SDP 2298. **pedigree:** ND 487/ERA 2. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519805 **origin:** Uruguay. **cultivar:** LE 2096. **pedigree:** ND 457\*3/TRITICUM DURUM/2/ESTANZUALA DAKURU. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519806 **origin:** Uruguay. **cultivar:** LE 2095. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519807 **origin:** Mexico. **cultivar:** SWM 4610-2Y-20M-1Y-OM. **pedigree:** CAR 422/ANAHUAC 75. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519808 **origin:** Kenya. **cultivar:** 4557T1-A-3-A. **pedigree:** FRONTANA/2/KENYA 58/NEWTATCH(II-17-5-)/3/K 184P/4/TRITICUM VULGARE/AEGILOPS OVATA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519809 **origin:** Morocco. **cultivar:** 4545T-14. **pedigree:** TAMA/2/CI 12633/\*IDEAD. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519810 **origin:** Uruguay. **cultivar:** LE 2090. **pedigree:** PRELUDIO/L 10/2/ESTANZUELA TARARIRAS. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519811 **origin:** Italy. **cultivar:** GIORGIO 449R. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519812 **origin:** Uruguay. **cultivar:** LE 2070. **pedigree:** PRELUDIO/L 10/2/SONORA 64/KNOTT 2. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519813 **origin:** Uruguay. **cultivar:** LE 2062. **pedigree:** ESTANQUELA ZORZAL/2/ND 457\*3/TRITICUM DURUM. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519814 **origin:** Mexico. **cultivar:** CH-8874-K-1M-1Y-OM. **pedigree:** HOPPS/ROBIN/2/KALYANSONA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519815 **origin:** Uruguay. **cultivar:** ESTANZUELA HORNERO. **pedigree:** NOVOFEN/KLEIN IMPACTO. **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. **pedigree:** ND 496 SIB/4/ND 396/3/PEMBINA/AGENT/2/SUWON 92. **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. **pedigree:** ND 499/2/WALDRON/RL 4205/3/CONLEY/ND 122/2/WI 261, FA 11-118. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519827 **origin:** United States. **cultivar:** ND 539. **pedigree:** WI 255/WANKEN 2/3/JUSTIN/CONLEY/2/WI 261, FA 11-147. **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 resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519829 **origin:** United States. **cultivar:** FA 12-153. **pedigree:** ND 487/4/ND 457/3/AGENT/T 1673/KENTANA 48/2/SUWON 92. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519830 **origin:** United States. **cultivar:** FA 13-1028. **pedigree:** WALDRON/RL 4205/2/ND 496. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519831 **origin:** Uruguay. **cultivar:** ESTANZUELA DORADO. **pedigree:** ESTANZUELA TARARIRAS/3/TOBARI/2/KLEIN PETISO/RAFAELA MAG. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519832 **origin:** Lebanon. **cultivar:** TRIGO 48. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519833 **origin:** Canada. **cultivar:** K 445. **pedigree:** HOPPS/MARQUILLO/2/BONZA/HOPE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519834 **origin:** Canada. **cultivar:** K 512. **pedigree:** THATCHER/BONZA/2/HOPPS/HOPE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519835 **origin:** Canada. **cultivar:** K 553. **pedigree:** THATCHER/BONZA/2/HOPPS/HOPE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519836 **origin:** Mexico. **cultivar:** 26931-1M-1Y-1M-1Y-OM. **pedigree:** CIANO SIB/OLESEN. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519837 **origin:** Ecuador. **cultivar:** SWM 4249-1Y-6M-5Y-OM. **pedigree:** HY SIB/PAVON SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519838 **origin:** Ecuador. **cultivar:** INIAP/ALTAR. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519839 **origin:** Ecuador. **cultivar:** E-II-74-11671-3C-2C-10E. **pedigree:** ZOPILOTE/\*3DESCONOCIDO. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519840 **origin:** Mexico. **cultivar:** 28258-300Y-301M. **pedigree:** PATO/CIANO. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519841 **origin:** Mexico. **cultivar:** 28036-63M-1Y-1M-OY. **pedigree:** INIA SIB/NAPO 63/2/CIANO 67. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519842 **origin:** Mexico. **cultivar:** F8-4. **pedigree:** PITIC 62/1153-526/2/SONORA 64. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519843 **origin:** Mexico. **cultivar:** 27746-43Y-1M-2Y-OM. **pedigree:** HYBRID DELHI 832/2/CIANO SIB/INIA SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519844 **origin:** Mexico. **cultivar:** 28560-19Y-1M-4Y-OM. **pedigree:** CIANO/OLESEN/BLUEBOY. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519845 **origin:** Mexico. **cultivar:** 26502-8Y-5M-1Y-OM. **pedigree:** SONORA 64/KLEIN RENDIDOR/2/BLUEBOY. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519846 **origin:** Mexico. **cultivar:** 23528-7M-1T-1M-8Y-OM. **pedigree:** CORRE CAMINOS/INIA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519847 **origin:** Mexico. **cultivar:** PAVON 76. **pedigree:** RDTN 38. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519848 **origin:** Mexico. **cultivar:** 28076-57Y-1M-1Y-OM. **pedigree:** CORRE CAMINOS/INIA/2/CIANO/SONORA 64. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519849 **origin:** Ecuador. **cultivar:** CM 33027-F-12M-1Y-4M-OY. **pedigree:** VEERY SIB. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519850 **origin:** France. **cultivar:** V 879-C1-2. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519851 **origin:** United States. **cultivar:** S 565. **pedigree:** SHERIDAN/SHORTANA/2/LEMHI. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.



PI 518864 to 519876-continued

- PI 519852 **origin:** Mexico. **cultivar:** II-34179-1Y-1M-7Y-OM. **pedigree:** INIA/BUEBIRD/2/RED RIVER 68. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519853 **origin:** Mexico. **cultivar:** 1959. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519854 **origin:** Mexico. **cultivar:** 26978-2M-300Y-300M. **pedigree:** PENJAMO 62/WHEAT RYE TRANS LOCATION/2/CALIDAD 22429. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519855 **origin:** Mexico. **cultivar:** 30626-0A. **pedigree:** KLEIN PETISO/RAFAELA/2/PENJAMO 62/3/CIANO/4/SAMACA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519856 **origin:** Mexico. **cultivar:** CM 28235-2Y-6Y-OM. **pedigree:** VIREO SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519857 **origin:** United States. **cultivar:** S 547. **pedigree:** BONANZA/WO 1809/2/CENTANA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519858 **origin:** United States. **cultivar:** S 546. **pedigree:** BONANZA/WO 1809/2/LEMHI. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519859 **origin:** Mexico. **cultivar:** D 25609-2M-1Y-1M. **pedigree:** PELICANO. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519860 **origin:** Mexico. **cultivar:** 31724-33M-6Y-0M. **pedigree:** CRANE SIB/PELICANO SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519861 **origin:** United States. **cultivar:** S 542. **pedigree:** BONANZA/WO 1809/2/BONANZA/1812. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519862 **origin:** Mexico. **cultivar:** CB 047. **pedigree:** DURUM DWARF S 15/CRANE SIB. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519863 **origin:** Mexico. **cultivar:** CB 072. **pedigree:** PINGUINO SIB. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 518864 to 519876-continued

- PI 519864 **origin:** Mexico. **cultivar:** CB 074. **pedigree:** DURUM VARIETY 24. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519865 **origin:** Mexico. **cultivar:** CB 087. **pedigree:** STEWART 63/GRULLA SIB/RD 119-1W-2Y. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519866 **origin:** Mexico. **cultivar:** CB 088. **pedigree:** GRULLA SIB\*2/TRITICUM DICOCCUM VERNUM. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519867 **origin:** Mexico. **cultivar:** CB 085. **pedigree:** CRANE SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519868 **origin:** Mexico. **cultivar:** CM 8874-K-1M-1Y-OM-(1-356Y). **pedigree:** HORK, RESEL. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519869 **origin:** Mexico. **cultivar:** CM 8963-A-1M-1Y-1M-5Y-6M-OY. **pedigree:** SD 648-5/8156/CHRIS/3/SONORA 64/KLEIN RENDIDOR/4/BUEBIRD/ CARDENAL/5/ZAMBEZI. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519870 **origin:** Mexico. **cultivar:** CM 8954-B-7M-1Y-1M-1Y-OM. **pedigree:** WREN/3/CIANO SIB/NOROESTE 66/ZAMBEZI. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519871 **origin:** Mexico. **cultivar:** CM 8954-B-7M-1Y-1M-OY. **pedigree:** WREN/3/CIANO SIB/NOROESTE 66/ZAMBEZI. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519872 **origin:** Mexico. **cultivar:** CM 15856-6M-5Y-3M-OY. **pedigree:** INIA SIB/NAPO 63/3/CALIDAD\*2/PV 18A/CIANO 67. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519873 **origin:** Mexico. **cultivar:** CM 5345-D-4Y-3M-2Y-4M-OY. **pedigree:** CALID/3/BUEBIRD/2/CIANO/SIETE CERROS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519874 **origin:** Mexico. **cultivar:** II 35129-26Y-2M-1Y-1M-1Y-OM. **pedigree:** BUEBIRD/GALLO/CIANO/SONORA 64/4/BUEBIRD. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 518864 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. **pedigree:** CIANO 67/ND/2/2225/3/SUWEON 92/POLK/2/WALDRON/4/ERA/ND 498/5 /49-120. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519881 **origin:** United States. **cultivar:** MN 81319. **pedigree:** MN 73110/MN 7439. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519882 **origin:** Ecuador. **cultivar:** CM 33205-B-LLM-6Y-OM. **pedigree:** TRITICUM AESTIVUM/2/KALYANSONA/BLUEBIRD/3/OLSEN/\*6 CIANO. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519883 **origin:** Mexico. **cultivar:** II-25609-2M-1Y-1M. **pedigree:** TREMOS MOLLE ENANA/\*2TEHUACAN/3/ZENA6TYI/BONTEILLE/2/WELLS/4 /BARRIGON YAQUI ENANO\*2/TEHUACAN/2/TOCUR ENANO/\*2TEHUACAN. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519884 **origin:** Mexico. **cultivar:** D 27617-9M-5Y-5M-OY. **pedigree:** COCORIT SIB. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 519885 **origin:** Mexico. **cultivar:** D 27582-9M-8Y-1M-OY. **pedigree:** BARRIGON YAQUI ENANO\*2/TACUR TIPO 125/2/\*4TEHUACAN/3/ BARRIGON YAQUI ENANO\*2/TEHUACAN/2/STEWART 63/ANHINGA SIB. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519886 **origin:** Mexico. **cultivar:** TRITICUM DURUM NAJADHAIA/BRANT SIB. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519887 **origin:** Mexico. **cultivar:** D 31604-4L-0L. **pedigree:** ANHINGA SIB/CHRIST DE CHILE. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519888 **origin:** Mexico. **cultivar:** CM 31678-R-4Y-2M-5Y-OM. **pedigree:** BUCK BUCK SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519889 **origin:** Mexico. **cultivar:** D 31536-5L-OL. **pedigree:** JORI SIB/CHRIS DE CHILE. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 519890 **origin:** Mexico. **cultivar:** D 31543-6L-OL. **pedigree:** JORI SIB/4/BARRIGON YAQUI ENANO/TEHUACAN/3/ZENATI/BONTEILLE /2/WELLS. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519891 **origin:** United States. **cultivar:** NE 75Y9192. **pedigree:** NAP HAL/CI 13449. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519892 **origin:** United States. **cultivar:** NE 75Y9225. **pedigree:** NAP HAL/CI 13449. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519893 **origin:** United States. **cultivar:** MT 2046. **pedigree:** B 52-91/2/KENYA FARMER/CENTANA/3/FORTUNA,683. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519894 **origin:** United States. **cultivar:** MT 2047. **pedigree:** B 52-91/2/KENYA FARMER/CENTANA/3/FORTUNA,683. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519895 **origin:** United States. **cultivar:** MT 2088. **pedigree:** MT 647/MT 6816. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519896 **origin:** United States. **cultivar:** MT 2089. **pedigree:** MT 647/MT 6816. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519897 **origin:** United States. **cultivar:** MT 2090. **pedigree:** MT 647/MT 6816. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519898 **origin:** United States. **cultivar:** MT 2115. **pedigree:** ND 476/4/B 52-91/3/NORIN 10/BREVOR 14/2/4\*CENTANA, 6823. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519899 **origin:** South Africa. **cultivar:** W 5801-4-M-1-LM. **pedigree:** YAQUI 54/2/NORIN 10/BREVOR 21-1C/3/FLAMEKS/4/TIMGALEN/2/EL GAUCHO/SONORA 64,W 95. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519900 **origin:** South Africa. **cultivar:** W 5831-5-M-3-LM. **pedigree:** SKEMER/2/BAJIO/KASTEEL,W 103. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

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 resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519902 **origin:** South Africa. **cultivar:** W 5844-6-M-6-LM.  
**pedigree:** TIMGALEN/RAVEN/2/SKEMER,W 105. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519903 **origin:** South Africa. **cultivar:** W 5844-6-M-7-LM.  
**pedigree:** TIMGALEN/RAVEN/2/SKEMER,W 106. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519904 **origin:** South Africa. **cultivar:** BAJIO/INIA/2/E 2163 (TIMGALEN). **pedigree:** W 5865-2-M-3-LM,W 107. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519905 **origin:** South Africa. **cultivar:** W 5866-3-M-4-LM, W 108.  
**pedigree:** NORESTE/9/FRONTANA/KENYA 58/2/NEWTATCH/3/NORIN 10/BREVOR 1/4/908/FRONTANA/5/KENTANA 54B/6/FLEMEKS/7/44W10-1/ QUADERNA/2/44W10-1/RAMINANS CHIESA/8/FRONTANA/KENYA 58/2/ NEWTATCH/3/NORIN 10/BREVOR 1/4/908/FRONTANA/5/KENTANA \*\*\*. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519906 **origin:** South Africa. **cultivar:** W 5894-2-M-4-LM,W 110.  
**pedigree:** TRIUMPH/CI 13523(AGENT)/9/FRONTANA/KENYA 58/2/NEWTATCH/3/ NORIN 10/BREVOR 1/4/908/FRONTANA/5/KENTANA 54B/6/FLAMEKS/7/ 44W10-1/QUADERNA/2/44W10-1/RAMINAS CHIESA/8/FRONTANA/KENYA 58/NEWTATCH/3/NORIN 10/BREVOR 1/4/908/FRONTANA \*\*\*. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519907 **origin:** South Africa. **cultivar:** W 5901-2-M-2-LM,W 111.  
**pedigree:** TRIUMPH/CI 13523(AGENT)/2/SKEMER. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- 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 leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 519910 **origin:** South Africa. **cultivar:** W 5672-3-M-11-LM.  
**pedigree:** SONORA 64A/TEZANOS PINTOS PRECOZ/2/MUOD/AZTECA,  
W 118. **disease resistance:** Stem rust. Spring Annual.  
Cultivated. Seed.
- PI 519911 **origin:** South Africa. **cultivar:** W 5864-4-M-2-LM.  
**pedigree:** TIMGALEN/2/BAJIO/KASTEEL,W 131. **disease**  
**resistance:** Stem rust. Spring Annual. Cultivated.  
Seed.
- PI 519912 **origin:** South Africa. **cultivar:** W 5885-2-M-1-LM.  
**pedigree:** KAW/CI 13523(AGENT)/5/YAKITANA 54/2/NORIN  
10/BREVOR 21-1C/3/  
MAGALIESBERG/MENTANA/2/QUADERNA/GABO/4/SONORA  
64/2/TEZANOS PINTOS PRECOZ/YAQUI 54,W 134. **disease**  
**resistance:** Stem rust. Spring Annual. 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.  
**disease resistance:** Stem rust. Spring Annual.  
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. **disease resistance:**  
Leaf and stem rust. Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 519919 **origin:** United States. **cultivar:** SD 2640. **pedigree:**  
OLAF/2/2\*CIANO 67/CHRIS. **disease resistance:** Leaf and  
yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- 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/BLEUEBOY/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/BLEUEBOY,W 144. disease resistance: Stem rust. Spring Annual. Cultivated. Seed.
- PI 519925 origin: South Africa. cultivar: C 1356-17E-2L. pedigree: CIANO/BLEUEBOY/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. Spring Annual. Cultivated. Seed.
- PI 519931 **origin:** Kenya. **cultivar:** KENYA 4526L-10-A-5. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519932 **origin:** Nepal. **cultivar:** NS 21. **disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519933 **origin:** Tunisia. **cultivar:** D 68-1-39A-7A. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519934 **origin:** United States. **cultivar:** PEMBINA/2/II-52-329/II-53-388. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519935 **origin:** Iran. **cultivar:** III-25-2-13B-2T-1T. **pedigree:** LEE/2/MARINGA/\*2BONZA. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519936 **origin:** Kenya. **cultivar:** 6295-4A. **pedigree:** ROMANY/2/GABO/GAMENYA 1A2C. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519937 **origin:** Mexico. **cultivar:** CM 33090-7-4M-2Y-5M-OY. **pedigree:** CHAT SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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. Spring Annual. Cultivated. Seed.
- PI 519939 **origin:** United States. **cultivar:** MN 81240. **pedigree:** ERA/TOBARTI/2/LOVRIN 11/3/MN 72149. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519940 **origin:** United States. **cultivar:** MN 81137. **pedigree:** MN 73110/MN 7439. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519941 **origin:** Egypt. **cultivar:** E 4843-3. **pedigree:** SUPREMO 227/SONORA 64. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519942 **origin:** Lebanon. **cultivar:** P3-6L-OL. **pedigree:** PRETO AMARELO/OVIACHIC. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- 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\*2/4/410/YAKTANA 54 ENANO/\*2C 14/5/OROFEN/7/TIMSTEIN/CHINESE 166/ KENYA FARMER/LERMA/NEWTHATCH/MAROQUI\*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:** CAPPELLE DESPREZ/YAKTANA 54A ENANO/3/KENTANA 54B/2/NARINO 59/DRP/4/8156/PENJAMO 62. **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/RULOFE. **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 519880 to 520121-continued

- 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. **cultivar:** 4266-R1-B2. **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 519966 **origin:** UNKNOWN. **cultivar:** TAI. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519967 **origin:** Mexico. **cultivar:** 28567-15Y-4M-1Y-OM. **pedigree:** CALIDAD/CIANO SIB/2/CIANO SONORA 64. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519968 **origin:** Mexico. **cultivar:** 28984-52Y-2M-2Y-2M-OY. **pedigree:** PINGUINO SIB. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 519969 **origin:** United States. **cultivar:** MN 81095. **pedigree:** MN 72149/MN 72528. **disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 519970 **origin:** Mexico. **cultivar:** SIETE CERROS/PATO BLANCO. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519971 **origin:** Mexico. **cultivar:** RANJAJA 12. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519972 **origin:** Mexico. **cultivar:** CORRE CAMINOS/2/CALIDAD/SARIC. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519973 **origin:** India. **cultivar:** IWP 21. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519974 **origin:** India. **cultivar:** IWP 24. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519975 **origin:** India. **cultivar:** IWP 7. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519976 **origin:** Mexico. **cultivar:** BUCK MANANTIAL/SIETE CERROS/2/CARDENAL. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519977 **origin:** Mexico. **cultivar:** WREN/2/CIANO/INIA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519978 **origin:** Mexico. **cultivar:** II-35129-26Y-2M-1Y-5M-OY. **pedigree:** BLUEBIRD/GALLO/2/CIANO/SONORA 64/3/BLUEBOY. **disease resistance:** Yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 519979 **origin:** Mexico. **cultivar:** 28268-2B-304B-OY. **pedigree:** PATO/2/SONORA/PURDUE/3/CIANO/INIA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519980 **origin:** Mexico. **cultivar:** 33898-7R-1M-4Y-1M-OY. **pedigree:** TOBARI 66/2/CIANO SIB/NOROESTE. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519981 **origin:** Mexico. **cultivar:** 35078-18Y-1M-2M-OY. **pedigree:** VICAM/CIANO SIB/3/CALIDAD/2/NORTENO/SIETE CERROS. **disease resistance:** Yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.
- PI 519982 **origin:** Mexico. **cultivar:** II-34795-5Y-1M-3Y-OM. **pedigree:** BLUEBIRD/3/SONORA 64/ANDES 64/2/NADADORES 63/JARAL 66 SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519983 **origin:** Mexico. **cultivar:** ?-1E-2E-2E-1E. **pedigree:** CI 8155/2/2\*NARINO 59/18993. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519984 **origin:** Mexico. **cultivar:** M 1214-1-49-196. **pedigree:** PITIC 62/II-53-526/2/SONORA 64/3/MENDOS/SONORA 64/TEZANOS PINTOS PRECOZ/YAQUI 54. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519985 **origin:** Mexico. **cultivar:** 26572-61Y-3M-OY. **pedigree:** BLUEBIRD/CIANO 67. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 519986 **origin:** Mexico. **cultivar:** BONZA 65. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519987 **origin:** Mexico. **cultivar:** 28071-7M-3Y-5M-OY. **pedigree:** NAPO 63/TOBARI SIB/2/8156. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519988 **origin:** Mexico. **cultivar:** 27224-36M-1Y-1M-OY. **pedigree:** CIANO/INIA/2/CALIDAD. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 519989 **origin:** Mexico. **cultivar:** SAMACA. **disease resistance:** Yellow (stripe) and stem rust. Spring Annual. Cultivated. Seed.
- PI 519990 **origin:** Cyprus. **cultivar:** ID 31544-1L-OL-2A-OA. **pedigree:** 21563 SIB/\*5 BARRIGON YAQUI ENANO. **disease resistance:** Stem and yellow (stripe) 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. Spring Annual. Cultivated. Seed.
- 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/NEWTATCH. **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:** NACUZARI 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  
8288-A-3M-5Y-OM-OY. **disease resistance:** Yellow (stripe)  
rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520003 **origin:** Mexico. **cultivar:** PAVON 76 SIB,CM  
8399-D-4M-3Y-1M-1Y-OM. **disease resistance:** Yellow  
(stripe) rust. Stem rust. Spring Annual. Cultivated.  
Seed.
- PI 520004 **origin:** Mexico. **cultivar:** CHIROCA SIB,CM  
8963-A-1M-1Y-1M-5Y-6M-OY. **disease resistance:** Yellow  
(stripe) rust. Leaf rust. Spring Annual. Cultivated.  
Seed.
- PI 520005 **origin:** Mexico. **cultivar:** MAGPIE SIB,CM  
20668-D-4Y-4M-1Y-OM. **disease resistance:** Yellow (stripe)  
rust. Spring Annual. Cultivated. Seed.
- PI 520006 **origin:** Chile. **cultivar:** T 4371-28T-1T-2T. **pedigree:**  
VOGEL 7353/3/Frontant/Premier/2/Gabo/4/Heine 110/5/  
Collafen. **disease resistance:** Yellow (stripe) rust.  
Spring Annual. Cultivated. Seed.
- PI 520007 **origin:** Chile. **cultivar:** T 4646-14T-1V-1T. **pedigree:**  
PITIC 62/2/TEMUCO THATCHER/SONORA 64/3/KNOTT #2/4/ HEINE  
110. **disease resistance:** Yellow (stripe) rust. Spring  
Annual. Cultivated. Seed.
- PI 520008 **origin:** Chile. **cultivar:** T 5024-15T-3V-1T. **pedigree:**  
CHRIS/2/S 948/ALBATROZ/3/IBIS. **disease resistance:**  
Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520009 **origin:** Chile. **cultivar:** T 5037-6T-2V-4T. **pedigree:**  
119-66/RIEBESEL 47-51. **disease resistance:** Yellow  
(stripe) rust. Spring Annual. Cultivated. Seed.
- 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:**  
Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520011 **origin:** Mexico. **cultivar:** CM 31678-R-4Y-2M-15Y-OM.  
**pedigree:** BUCK BUCK SIB. **disease resistance:** Yellow  
(stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520012 **origin:** Mexico. **cultivar:** 31773-4M-3Y-1M-OY. **pedigree:**  
ANHINGA SIB/CAPELLI ENANO\*3/GAZA/3/TEHUACAN\*3/BARRIGON  
YAQUI ENANO \*2/TEHUACAN. **disease resistance:** Yellow  
(stripe) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 520013 **origin:** Mexico. **cultivar:** GUILLEMOT,CM  
14646-C-1Y-1M-1Y-OY. **disease resistance:** Yellow (stripe)  
rust. Stem and leaf rust. Spring Annual. Cultivated.  
Seed.
- PI 520014 **origin:** Mexico. **cultivar:** GUILLEMOT,CM 14646-C-1Y-1M-1Y.  
**disease resistance:** Yellow (stripe) rust. Stem and leaf  
rust. Spring Annual. Cultivated. Seed.
- PI 520015 **origin:** Mexico. **cultivar:** BITTERN SIB,CM  
9799-126M-1M-4Y-OY-OM. **disease resistance:** Yellow  
(stripe) rust. Stem and leaf rust. Spring Annual.  
Cultivated. Seed.
- PI 520016 **origin:** Mexico. **cultivar:** BITTERN SIB,CM  
9799-126M-1M-5Y-OY. **disease resistance:** Leaf rust.  
Spring Annual. Cultivated. Seed.
- PI 520017 **origin:** Mexico. **cultivar:** VEERY SIB,CM  
33027-F-12M-1Y-6M-OY. **disease resistance:** Yellow  
(stripe) rust. Stem rust. Spring Annual. Cultivated.  
Seed.
- PI 520018 **origin:** United States. **cultivar:** NE 77655. **pedigree:**  
BEZOSTAIA 1/CENTURK/2/ARTHUR/CENTURK. **disease**  
**resistance:** Stem rust. Spring Annual. Cultivated.  
Seed.
- PI 520019 **origin:** Mexico. **cultivar:** ROHEL SIB,CD 1895-12Y-OY-2E.  
**disease resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520020 **origin:** Mexico. **cultivar:** VULTURE SIB,CM  
36064-A-1M-1Y-OM. **disease resistance:** Yellow (stripe)  
rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520021 **origin:** United States. **cultivar:** SD 74211. **pedigree:**  
CENTURK\*2/HAND. **disease resistance:** Stem rust. Spring  
Annual. Cultivated. Seed.
- PI 520022 **origin:** Mexico. **cultivar:** KOLENTEN SIB,CD  
10011-23M-3Y-4M-OY. **disease resistance:** Yellow (stripe)  
rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520023 **origin:** Mexico. **cultivar:** MEMO SIB,CD  
10521-I-4M-3Y-1M-1Y-OM. **disease resistance:** Yellow  
(stripe) rust. Leaf rust. Spring Annual. Cultivated.  
Seed.



PI 519880 to 520121-continued

- PI 520024 **origin:** United States. **cultivar:** WA 6389. **pedigree:** K 69001496/ERA,WA 6389. **disease resistance:** Yellow (stripe) rust. Leaf and stem rust. Spring Annual. Cultivated. Seed.
- PI 520025 **origin:** United States. **cultivar:** MN 81070. **pedigree:** MN 7466/MN 7357. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520026 **origin:** United States. **cultivar:** MN 80089. **pedigree:** ERA (1)340/MN 7155. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520027 **origin:** Canada. **cultivar:** RL 7075. **pedigree:** WARD/MACOUN. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520028 **origin:** United States. **cultivar:** MN 80056. **pedigree:** ERA/TOBARI/2/LOVRIN 11/3/POLK. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520029 **origin:** Tunisia. **cultivar:** D 68-5-18A-1A. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520030 **origin:** Italy. **cultivar:** GERARDO 667. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520031 **origin:** Italy. **cultivar:** GIORGIO 446R. **disease resistance:** Yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520032 **origin:** Iran. **cultivar:** 1-2167-1-50-101. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520033 **origin:** Kenya. **cultivar:** KENYA 4135-H3D5. **pedigree:** KENTANA 48/3/MARIA ESCOBAR/SUPRESA/GABO/4/CI 13632. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520034 **origin:** Kenya. **cultivar:** KENYA 4970-L10A5C. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520035 **origin:** Pakistan. **cultivar:** COCORAQUE 75 SIB. **pedigree:** ORE/F1-58/FUNDULEA/3/MEF SIB/TIBA(2)/2/. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 520036 **origin:** Kenya. **cultivar:** KENYA 4500-4. **pedigree:** HEBRAD SEL/5/WI 245/SUPRESA 51/3/2\*FROCOR/FRONTANA/YAQUI/4/ ANHINGA. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520037 **origin:** Kenya. **cultivar:** DP 869-B3B5. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520038 **origin:** Kenya. **cultivar:** KENYA 6661-21. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520039 **origin:** Kenya. **cultivar:** KENYA 6290-1. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520040 **origin:** Kenya. **cultivar:** KENYA 6297-2. **pedigree:** ROMANY/2/WI 245/SUPRESA 51/3/\*2FROCOR/FRONTANA/YAQUI/4/ ANHINGA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520041 **origin:** Pakistan. **cultivar:** CM 32347-3M-1Y-1M-1Y-1B-OA. **pedigree:** BLUEBIRD/GALLO/2/GABOTO/SIETE CERROS/3/BLUEBIRD/CIANO. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520042 **origin:** Kenya. **cultivar:** KENYA 4527-1. **pedigree:** AFRICA/MAYO 48/5/WI 245/SUPRESA 51/3\*2FROCOR/FRONTANA/2/ ANHINGA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520043 **origin:** Kenya. **cultivar:** KENYA SUNGURA. **pedigree:** ID 1877/MORRIS,KENYA 4365 B4D5. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520044 **origin:** Kenya. **cultivar:** S 718. **pedigree:** USA IV-A. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520045 **origin:** Pakistan. **cultivar:** EMU SIB/MILDRESS/2/KALYANSONA/BLUEBIRD. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520046 **origin:** Mexico. **cultivar:** CM 36064-A-1M-5Y-OM. **pedigree:** YECORA F 70(BLUEBIRD 2)RESEL B/TRIFON SIB/2/ROUSSALKA/TORIM 73,PM 19. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 520047 **origin:** Pakistan. **cultivar:** BLUEBIRD/GILL/2/YAQUI 50. **pedigree:** ENANO/KALYANSONA\*3/3/ LILIFEN/2/HD 832/BLUEBIRD. **disease resistance:** Leaf and stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520048 **origin:** Mexico. **cultivar:** CM 33090-N-1M-5Y-OM. **pedigree:** KAVKAZ/TANORI 71/2/TITO. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520049 **origin:** Pakistan. **cultivar:** PC 149. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520050 **origin:** Mexico. **cultivar:** 27812-2Y-4M-1Y-OM. **pedigree:** CIANO SIB/SONORA 64. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520051 **origin:** Mexico. **cultivar:** II-27105-31M-300Y. **pedigree:** MENGAVI/8156/2/JARAL SIB/SIETE CERROS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520052 **origin:** Mexico. **cultivar:** CM 1156-29M-1Y-3M-OY. **pedigree:** FURY/BLUEBIRD. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520054 **origin:** Pakistan. **cultivar:** CHOLI/2/ROQUE SIB/SOTY/3/SISKEN. **pedigree:** SIB/PAVON SIB. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520055 **origin:** Mexico. **cultivar:** 31680-2L-0L. **pedigree:** GRULLA/JORI/2/RD 3-6/STW 6. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520056 **origin:** Nepal. **cultivar:** NL 315. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520057 **origin:** Nepal. **cultivar:** CPAN 1796. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520058 **origin:** Mexico. **cultivar:** 27105-21M-300Y-3M-1Y. **pedigree:** CARDENAL SIB. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 520059 **origin:** Mexico. **cultivar:** 26787-300Y-300M-302Y-301M-OY. **pedigree:** ROB SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520060 **origin:** Mexico. **cultivar:** 26481-22Y-1M-3Y-OM. **pedigree:** NO/BUEBIRD SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520061 **origin:** Mexico. **cultivar:** POLY CROSS. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520062 **origin:** Mexico. **cultivar:** MAGHREBI 72. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520063 **origin:** Mexico. **cultivar:** AVETORO SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520064 **origin:** Mexico. **cultivar:** FYLGIA SIB. **pedigree:** CM 27582-8M-13Y-1M-OY. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520065 **origin:** Mexico. **cultivar:** 30384-3T-1M-1Y-OM. **pedigree:** BLUEBIRD/NARINO 59 (4777). **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520066 **origin:** Mexico. **cultivar:** 26867-302Y-300M-OY. **pedigree:** LUISA STRAMPELLI 3-1/PITIC 62/2/INIA/CORRE CAMINOS/2/INIA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520067 **origin:** Mexico. **cultivar:** CM 5367-1Y-1M-OY. **pedigree:** TOBARI/8156/3/CORRE CAMINOS/2/INIA/YECORA F 70 (BLUEBIRD 2). **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520068 **origin:** Nepal. **cultivar:** HB 621. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520069 **origin:** Mexico. **cultivar:** D 28984-52Y-1M-500Y-500B-OY. **pedigree:** PINGUINO SIB. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520070 **origin:** Mexico. **cultivar:** CD 1895-12Y-OY. **pedigree:** MEXI SIB/FYGLIA SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520071 **origin:** Nepal. **cultivar:** VL 481. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 520072 **origin:** Nepal. **cultivar:** NL 249. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520073 **origin:** Mexico. **cultivar:** CARIFEN 422/ANAHUAC. **disease resistance:** Yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520074 **origin:** Algeria. **cultivar:** ALGERIAN LINE 38. **disease resistance:** Yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.
- PI 520075 **origin:** Algeria. **cultivar:** ALGERIAN LINE 8. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520076 **origin:** Mexico. **cultivar:** ROUSALKA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520077 **origin:** Kenya. **cultivar:** KENYA NYOLKA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520078 **origin:** Algeria. **cultivar:** ALGERIAN LINE 15. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520079 **origin:** Mexico. **cultivar:** CM 29796-5-OK. **pedigree:** MJINTA/2/CALIDAD/LUNDI. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520080 **origin:** Algeria. **cultivar:** 30793-3M-1MCH-1MCH-OMCH-OBK-OKE. **pedigree:** CROSS UNKNOWN. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520081 **origin:** Mexico. **cultivar:** CM 2182-5M-1Y-1M-OY-OBK. **pedigree:** SPARROW. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520082 **origin:** India. **cultivar:** JWP 19. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520083 **origin:** Kenya. **cultivar:** L 1077-1L-0KE. **pedigree:** AUSTRALIAN LINE/FLORENCE/AUORE. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520084 **origin:** Kenya. **cultivar:** L 1077-2L-0KE. **pedigree:** AUSTRALIAN LINE/FLORENCE/AUORE. **disease resistance:** Yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 520085 **origin:** Kenya. **cultivar:** SWM 1426-2L-OKE. **pedigree:** KAVKAZ/TANORI 71. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520086 **origin:** Kenya. **cultivar:** SWM 1426-3L-OKE. **pedigree:** KAVKAZ/TANORI 71. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520087 **origin:** Kenya. **cultivar:** SWM 1429-3L-OKE. **pedigree:** KAVKAZ/SARIC 70. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520088 **origin:** Kenya. **cultivar:** SWM 1435-2L-OKE. **pedigree:** KAVKAZ/PAKISTAN 20. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520089 **origin:** Kenya. **cultivar:** SWM 1443-3L-OKE. **pedigree:** AURORA/EAGLE. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520090 **origin:** Kenya. **cultivar:** KENYA 6820. **pedigree:** KENYA 4500-35/KENYA SWARAS. **disease resistance:** Yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.
- PI 520091 **origin:** Kenya. **cultivar:** KENYA MBWEHA. **pedigree:** KENYA 6106-2. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520092 **origin:** Kenya. **cultivar:** H 27. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520093 **origin:** Turkey. **cultivar:** SE 424-5S-2S-OS. **pedigree:** CARAZINHO/RON. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520094 **origin:** Egypt. **cultivar:** L 1443-10963. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520095 **origin:** Egypt. **cultivar:** L 2331-1291. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520096 **origin:** UNKNOWN. **cultivar:** VT 1169. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520097 **origin:** India. **cultivar:** BW 72. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 519880 to 520121-continued

- PI 520098 **origin:** Mexico. **cultivar:** EMU SIB. **pedigree:** CM 8327-C-9M-1Y-5M-1Y-OM. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520099 **origin:** Algeria. **cultivar:** ALGERIAN LINE 27. **disease resistance:** Yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520100 **origin:** Algeria. **cultivar:** ALGERIAN LINE 33. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520101 **origin:** Algeria. **cultivar:** ALGERIAN LINE 46. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520102 **origin:** Tunisia. **cultivar:** CM 33202-E-1M-2Y-OM. **pedigree:** AURORA/3/KALYANSONA/2/BLUEBIRD/BONANZA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520103 **origin:** UNKNOWN. **cultivar:** SUKARYA 75. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520104 **origin:** UNKNOWN. **cultivar:** SEYHAN 4. **disease resistance:** Yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.
- PI 520105 **origin:** UNKNOWN. **cultivar:** BERK/OUI. **disease resistance:** Stem rust and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520106 **origin:** Mexico. **cultivar:** ALONDRA SIB,CM 11683-A-1Y-1M-3Y-11M-OY. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520107 **origin:** UNKNOWN. **cultivar:** CUMHURIET 75. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520108 **origin:** Tunisia. **cultivar:** CM 39714-5S-2AP-OAP. **pedigree:** HORK/KALYANSONA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520109 **origin:** Australia. **cultivar:** COQUENA. **pedigree:** CM 1020-200M-500Y-500B-OY. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520110 **origin:** Mexico. **cultivar:** CISNE SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

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 520122 to 520124-continued

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 520125 to 520254-continued

- PI 520133 **origin:** Australia. **cultivar:** W 3496. **pedigree:** COMBINATION III, VERSTEIN/CI 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 (CI 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/AUORE/2/REICHENBACHII KORN/3/MENGA VI/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/AUORE/2/REICHENBACHII KORN/3/MENGA VI/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/AUORE/2/REICHENBACHII KORN/3/MENGA VI/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/AUORE/2/REICHENBACHII KORN/3/MENGA VI/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 520125 to 520254-continued

- 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/AUORE/2/REICHENBACHII KORN/3/MENGAVI/II-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.  
**pedigree:** NORIN 10/BREVOR/2/GABO/LD 357/3/CAJEME 54(E  
1360)/4/  
KLEINTROU/5/MENTANA/KENYA/SUPERMO/FLORENCE/AUORE/6/PITIC/  
3/ FRONTANA/KENYA/NEWTATCH/THATCHER/4/SONORA 64,W 159.  
**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. **cultivar:** W 5002-11-A-M-A-M-M-M-W1-LM. **pedigree:** FONTANA/YAKTANA(E1492)/2/SKEMER/4/(E1491)BONZA SIB/FRONTANA /2/2\*THATCHER/3/MENTANA/5/JANITOR/6/AFRICAN MAYO,W 164. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520152 **origin:** South Africa. **cultivar:** W 5053-M-M-A-M(A)-M-M-M-W2-TM. **pedigree:** KENYA 20/MENGA VI,W 165. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520153 **origin:** South Africa. **cultivar:** W 4836-A-M-A-M-M-W1-TM. **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. **pedigree:** KAVKAZS/HD 2009. **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. **pedigree:** NEWTHATCH/2/MENTANA/KENYA (908)/3/FRONTANA\*2/5/NAINARI 60/4/ YAKTANA 54 ENANO \*2/6/(C 14)NEWTHATCH/MENTANA/2/KENYA/MENTANA/2/KENYA/MENTANA/3/FRONTANA/4/CENTRIFEN/7/(4777 (4777)FROCOR/3/MCMURACHY/2/KENTANA/YAQUI 50/RC 1/YAQUI \*\*\*. **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 520125 to 520254-continued

- 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. **pedigree:** FRONTANA/3/MCMURACHY/KENTANA/2/\*2YAQUI 50/7/(4777)FROCOR/3/ MCMURACHY/2/KENTANA/YAQUI 50/4/FRONTANA/5/KENYA 58/NEWTATCH /6/N 10131/CALIDAD LUNDI. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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 520125 to 520254-continued

- PI 520172 **origin:** Mexico. **cultivar:** PAVON SIB. **pedigree:** CM 8399-4M-3Y-3M-OY. **disease resistance:** Stem rust and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520173 **origin:** Mexico. **cultivar:** TAL. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520174 **origin:** Mexico. **cultivar:** AVETORE SIB. **pedigree:** D 32864. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520175 **origin:** Mexico. **cultivar:** BURGAS 2. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520176 **origin:** South Africa. **cultivar:** RP 5113-M4-M1-RP3-TM. **pedigree:** CIANO/INIA/2/MENGA VI/8156,W 190. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520177 **origin:** South Africa. **cultivar:** RP 5113-M-M1-RP11-TM. **pedigree:** CIANO/INIA/2/MENGA VI/8156,W 191. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520178 **origin:** South Africa. **cultivar:** RP 5678-M1-M9-RP12-TM. **pedigree:** SIETE CERROS/PATO BLANCO/2/BUEBIRD(18 M)/3/CIANO/INIA SIB, W 192. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520179 **origin:** South Africa. **cultivar:** W 6648-W3-W1-5-W1-4-W3-3M. **pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54/7/NORIN 10/BREVOR 17/2/GABO/LD 357/3/RHEEBOK/4/NORIN 10/BREVOR 17/2/GABO/LD 357/3/FLEMEKS/5/AGROPYRON DERIVATIVE/6/(3309)GABO/Y 255 (UNKNOWN)/2/YAKTANA 54/NOV B21-1C/3/KENYA 20 \*\*\*. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520180 **origin:** South Africa. **cultivar:** W 6648-W3-W1-5-W1-4-W7-3M. **pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54/7/NORIN 10/BREVOR 17/2/GABO/2D 357/3/RHEEBOK/4/NORIN 10/BREVOR 17/2/GABO/LD 357/3/FLEMEKS/5/AGROPYRON DERIVATIVE/6/(3309)GABO/Y 255 (UNKNOWN)/2/YAKTANA 54/NOV B21-1C/3/KENYA 20 \*\*\*. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520181 **origin:** South Africa. **cultivar:** CM 4293-M-T2-W2-WM. **pedigree:** PATO BLANCO/GABOTO,W 195. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520125 to 520254-continued

- PI 520182 **origin:** South Africa. **cultivar:** CM 6649-W1-W8-WM.  
**pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/NAINARI  
60/3/DROMEDARIS /4/AIKWWE,W151. **disease resistance:**  
Stem and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520183 **origin:** Mexico. **cultivar:** CD 17305-A-5M-1Y-1M-OY.  
**pedigree:** FUL SIB/FLAMINGO SIB/2/OYCA SIB/3/RUFF  
SIB/FLAMINGO SIB. **disease resistance:** Stem and yellow  
(stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520184 **origin:** South Africa. **cultivar:** CD 6649-W1-W8-WM-1M-OY.  
**pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/NAINARI  
60/3/DOMEDARIS/4/ SKEMER,W 155. **disease resistance:** Stem  
rust. Spring Annual. Cultivated. Seed.
- PI 520185 **origin:** South Africa. **cultivar:** W 5870-3-M-4-LM.  
**pedigree:**  
AGUREERA/KENYA/2/MARROQUI/3/SUPREMO/4/GABO/TIMGALLEN(E2163)  
/5/CRESPO 63(65 ISWRN-122)/2/JARAL,W 157. **disease**  
**resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520186 **origin:** Mexico. **cultivar:** 6661-53. **pedigree:** WI  
245/3/FRONTANA/KENYA/NEWTATCH/4/CI 8154/\*2FROCOR/\*2  
TOBARI 66. **disease resistance:** Powdery mildew. Spring  
Annual. Cultivated. Seed.
- PI 520187 **origin:** Mexico. **cultivar:** CD 16895-A-3M-2Y-5M-OY.  
**pedigree:** PELICANO SIB/SAH/3/FLAMINGO/2/MEXI 75. **disease**  
**resistance:** Yellow (stripe) rust. Leaf rust. Spring  
Annual. Cultivated. Seed.
- PI 520188 **origin:** Mexico. **cultivar:** CD 13510-F-2Y-5M-OY.  
**pedigree:** IBIS SIB/USA 015048/2/ANHINGA SIB. **disease**  
**resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520189 **origin:** Mexico. **cultivar:** CD 10549-U-7M-2Y-1M-OY.  
**pedigree:** TEZ SIB. **disease resistance:** Yellow (stripe)  
rust. Spring Annual. Cultivated. Seed.
- PI 520190 **origin:** Turkey. **cultivar:** FRONTANA/2/KENYA  
58/NEWTATCH/3/NORIN 10. **pedigree:** /2/GABO  
55/4/3689/5/CAJEME 54/4160/2/HELVIA RESISTANT. **disease**  
**resistance:** Powdery mildew. Spring Annual. Cultivated.  
Seed.

PI 520125 to 520254-continued

- PI 520191 **origin:** United States. **cultivar:** ID 0153. **pedigree:** BORAH/3/II-60-101(PEMBINA/II-52-329/II-53-388/III-58-4/4/II-53-546,CI 15661)/2/TEZANOS PINTOS PRECOZ/SONORA 64. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520192 **origin:** United States. **cultivar:** WA 6292. **pedigree:** WA 6030/CRANE(S 160-3). **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520193 **origin:** United States. **cultivar:** WA 6307. **pedigree:** BEZOSTAIA 1/K 6901532/2/ERA. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520194 **origin:** United States. **cultivar:** WA 6510. **pedigree:** K 6901495/(S 27)K 6701471. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520195 **origin:** United States. **cultivar:** WA 6511. **pedigree:** K 6901532/ERA. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520196 **origin:** United States. **cultivar:** WA 6521. **pedigree:** K 6800707,E 7013273-4-5. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520197 **origin:** United States. **cultivar:** D 7483. **pedigree:** WARD/68139. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520198 **origin:** United States. **cultivar:** D 772. **pedigree:** CANDO/EDMORE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520199 **origin:** United States. **cultivar:** D 773. **pedigree:** CANDO/EDMORE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520200 **origin:** United States. **cultivar:** D 774. **pedigree:** CANDO/EDMORE. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520201 **origin:** United States. **cultivar:** ND 569. **pedigree:** OLAF/2/ND 499/ND 516. **disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.



PI 520125 to 520254-continued

- 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 1/3/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-1B. **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 520125 to 520254-continued

- 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 520125 to 520254-continued

- 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-E1-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 1//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/TENOS 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 520125 to 520254-continued

- PI 520231 **origin:** United States. **cultivar:** MN 7518. **pedigree:** FLETCHER/3/IRN 46/CIANO 67/2/ERA/TOBARI 66/4/KITT. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520232 **origin:** United States. **cultivar:** MN 7533. **pedigree:** FLETCHER/NORTENO 66/2/KITT/3/MN 7125. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520233 **origin:** United States. **cultivar:** MN 7570. **pedigree:** TEZANOS PINTOS PRECOZ/2/IRN 46/CIANO/3/ANGUS/4/PURKOT/TOBARI/2/FLETCHER. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520234 **origin:** St Christopher-Nevis-An. **cultivar:** CM 7461-W5-T1-W2-WM. **pedigree:** MEXIPAC 148/BONANZA, W 198. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520235 **origin:** South Africa. **cultivar:** W 6647-15-1WM, W 153. **pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54(E 1898)/7/(3462) NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/RHEEBOK/5/ (3466)NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/SKIMMER /6/AGROPYRON 49/8/RHODESIA F1516(E2105)/3/SONORA 64 \*\*\*. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520236 **origin:** South Africa. **cultivar:** W 6647-15-3WM, W 154. **pedigree:** SONORA 64/2/TEZANOS PINTOS PRECOZ/YAQUI 54(E 1898)/7/(3462) NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/RHEEBOK/5/ (3466)NORIN 10/BREVOR 17/2/GABO/LD 357/3/CAJEME 54/4/SKIMMER /6/AGROPYRON 49/8/RHODESIA F1516(E2105)/3/SONORA 64 \*\*. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520237 **origin:** United States. **cultivar:** D 802. **pedigree:** D 77169/D 773. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520238 **origin:** United States. **cultivar:** ND 573. **pedigree:** ND 526/KITT. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520239 **origin:** United States. **cultivar:** FA 12-105. **pedigree:** ND 551/2/BUTTE\*2/ND 507. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520240 **origin:** United States. **cultivar:** FA 12-112. **pedigree:** ND 527/2/WALDRON/NS 526/3/ERA. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 520125 to 520254-continued

- 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/CRANE 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-OY. **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 **origin:** United States. **cultivar:** ND 600. **pedigree:** LEW/2/TIOGA\*3/FO 629/3/TIOGA/RL 6043. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.

PI 520258 to 520419-continued

- PI 520261 **origin:** United States. **cultivar:** ND 599. **pedigree:** ND 586 SIB/LEN. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520262 **origin:** United States. **cultivar:** COMBINATION VII(SR 13+SR 17). **disease resistance:** Stem rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520263 **origin:** Australia. **cultivar:** CNSSR32A.SQ.,(MN SEL)(SR 32). **pedigree:** CHINESE SPRING/AEGILOPS SPELTOIDES LINE FROM MISSOURI. **disease resistance:** Stem rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520264 **origin:** United States. **cultivar:** W3498SR31AU (SR 31,LR 26). **pedigree:** LITTLE CLUB/2/GABOB\*3/CHARTER(W 3498)/3/AURORA(MN SEL). **disease resistance:** Stem rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520265 **origin:** United States. **cultivar:** ND 598. **pedigree:** ND 487/WALDRON/2/ND 521/3/RL 4299. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520266 **origin:** Canada. **cultivar:** LEAF RUST MONOGENE LINE LR 2C(THATCHER). **pedigree:** RL 6047(LR2C). **disease resistance:** Leaf rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520267 **origin:** Canada. **cultivar:** LEAF RUST MONOGENE LINE LR 3C(THATCHER). **pedigree:** RL 6042 (LR3C). **disease resistance:** Leaf rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520268 **origin:** Canada. **cultivar:** LEAF RUST MONOGENE LINE LR 11,RL 6048. **disease resistance:** Leaf rust. Isoline. Annual. Cultivated. Seed.
- PI 520269 **origin:** Canada. **cultivar:** LEAF RUST MONOGENE LINE LR 19(THATCHER). **pedigree:** RL 6040 (LR19). **disease resistance:** Leaf rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520270 **origin:** Canada. **cultivar:** LEAF RUST MONOGENS LINE LR 23(THATCHER). **pedigree:** RL 6012 (LR23). **disease resistance:** Leaf rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520271 **origin:** Canada. **cultivar:** LEAF RUST MONOGENE LINE LR B(THATCHER). **pedigree:** RL 6051 (LRB). **disease resistance:** Leaf rust. Isoline. Spring Annual. Cultivated. Seed.

PI 520258 to 520419-continued

- PI 520272 **origin:** Canada. **cultivar:** LEAF RUST MONOGENE LINE ECH(THATCHER). **pedigree:** RL 6014. **disease resistance:** Leaf rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520273 **origin:** Canada. **cultivar:** LEAF RUST MONOGENE LINE LR30+T(THATCHER. **pedigree:** \*6/ TERENCEIO)),RL 6049(LR30+T). **disease resistance:** Leaf rust. Isoline. Spring Annual. Cultivated. Seed.
- PI 520274 **origin:** Italy. **cultivar:** V 910. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520275 **origin:** Italy. **cultivar:** V 922. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520276 **origin:** Italy. **cultivar:** V 747. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520277 **origin:** United States. **cultivar:** ND 596. **pedigree:** BUTTE\*2/3/ALEX SIB/2/BUTTE\*2/ND 507. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520278 **origin:** United States. **cultivar:** ND 595. **pedigree:** OLAF\*2/3/WALDRON\*2/AGENT/2/ND 496. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520279 **origin:** Brazil. **cultivar:** PF 74043. **pedigree:** TRIUMPH/TRITICUM AEGILOPS/2/S 40. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520280 **origin:** Brazil. **cultivar:** PF 7578. **pedigree:** JARAL SIB/IAS 51/2/IAS 59. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520281 **origin:** United States. **cultivar:** ND 593. **pedigree:** LEN/BUTTE\*2/ND 507. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520282 **origin:** Brazil. **cultivar:** CEP 75336. **pedigree:** SA 3423/PAT 7285. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520283 **origin:** Brazil. **cultivar:** SB 75115. **pedigree:** ARTHUR TYPE/4/ANDES/TRANSFER/SUD/3/INIA 66/5/GABOTO. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520284 **origin:** United States. **cultivar:** ND 586. **pedigree:** ND 537/4/ND 496/3/GIZA 141/NA 710. **disease resistance:** Leaf and stem rust. Spring Annual. Cultivated. Seed.



PI 520258 to 520419-continued

- PI 520285    **origin:** Brazil.    **cultivar:** SB 75129.    **pedigree:** BLUEBIRD/PATO/SONORA 64/KLEIN RENDIDORE.    **disease resistance:** Yellow (stripe) rust.    Spring Annual. Cultivated.    Seed.
- PI 520286    **origin:** Brazil.    **cultivar:** SB 7611.    **pedigree:** CHANATE/3/MENGA VI/8156/2/CIANO SIB/GALLO/4/DESCONCIDO.    **disease resistance:** Leaf rust.    Spring Annual. Cultivated.    Seed.
- PI 520287    **origin:** Brazil.    **cultivar:** CM 8670-B-2Y-9M-1Y-1M-OY.    **pedigree:** YECORA/SONORA/2/GENESEE/CHRIS/3/NOROESTE 66/ERA,W 204.    **disease resistance:** Stem and yellow (stripe) rust.    Spring Annual. Cultivated.    Seed.
- PI 520288    **origin:** South Africa.    **cultivar:** CM 29816-M12-19-B22-GM.    **pedigree:** BLUEBIRD/3/TOBARI/2/CIANO/PLATO BLANCO,W 209.    **disease resistance:** Stem rust.    Spring Annual. Cultivated.    Seed.
- PI 520289    **origin:** South Africa.    **cultivar:** W 7975-M1-4-B14-GM.    **pedigree:** DROM/4/AZTECA/3/EGYPT/2/EL GOUCHO/SONORA/6/GABO/Y 255/2/ YAKTANA 54/NOV B21-1C/4/KENYA 20/5/CIANO,W 212.    **disease resistance:** Stem rust.    Spring Annual. Cultivated.    Seed.
- PI 520290    **origin:** South Africa.    **cultivar:** W 7982-M1-B3-GM.    **pedigree:** FLAMEKS/SARIC 70,W 213.    **disease resistance:** Stem and leaf rust.    Spring Annual. Cultivated.    Seed.
- PI 520291    **origin:** South Africa.    **cultivar:** W 7982-M1-B12-GM.    **pedigree:** FLAMEKS/SARIC 70,W 214.    **disease resistance:** Stem and leaf rust.    Spring Annual. Cultivated.    Seed.
- PI 520292    **origin:** South Africa.    **cultivar:** W 7988-M1-6-B14-GM.    **pedigree:** HOOPVOL/PI 297001,W 218.    **disease resistance:** Leaf rust.    Spring Annual. Cultivated.    Seed.
- PI 520293    **origin:** South Africa.    **cultivar:** CMA 14793-W2-W3-G5.    **pedigree:** ARTHUR TYPE,FLORENCE/CANDEAL/TRANSFER/BULGARIA 88W 234.    **disease resistance:** Stem and leaf rust.    Spring Annual. Cultivated.    Seed.
- PI 520294    **origin:** South Africa.    **cultivar:** CMA 14793-W2-W17-G2.    **pedigree:** ARTHUR TYPE,FLORENCE/CANDEAL/TRANSFER/BULGARIA 88, W244.    **disease resistance:** Stem and leaf rust.    Spring Annual. Cultivated.    Seed.
- PI 520295    **origin:** South Africa.    **cultivar:** CMA 15188-W1-W2-G4.    **pedigree:** PLAN ALTO/RON 2,W 248.    **disease resistance:** Stem rust.    Spring Annual. Cultivated.    Seed.

PI 520258 to 520419-continued

- PI 520296 **origin:** United States. **cultivar:** CA  
70276-27D-15-1D-1TL-1D. **pedigree:** BLUDBIRD SIB/ANZA,UC  
353. **disease resistance:** Stem rust. Spring Annual.  
Cultivated. Seed.
- PI 520297 **origin:** United States. **cultivar:** ND 582. **pedigree:**  
STOA,ND 527/COTEAU SIB/ERA. **disease resistance:** Stem and  
leaf rust. Spring Annual. Cultivated. Seed.
- PI 520298 **origin:** United States. **cultivar:** ND 580. **pedigree:**  
WALDRON/2/S 6579/JUSTIN. **disease resistance:** Leaf rust.  
Spring Annual. Cultivated. Seed.
- PI 520299 **origin:** United States. **cultivar:** ND 574. **pedigree:**  
OLAF/5/\*JUSTIN/ND 335/2/PEMBINA/3/WANKEN 2/4/CHRIS/WI  
261. **disease resistance:** Leaf and yellow (stripe) rust.  
Spring Annual. Cultivated. Seed.
- PI 520300 **origin:** United States. **cultivar:** YAVAROS. **pedigree:** UC  
496. **disease resistance:** Leaf and yellow (stripe) rust.  
Spring Annual. Cultivated. Seed.
- PI 520301 **origin:** United States. **cultivar:** CA  
69486-18D-1TL-1TL-4TL-OTL. **pedigree:** ND 6644\*2/ACC  
63037,UC 307. **disease resistance:** Stem rust. Spring  
Annual. Cultivated. Seed.
- PI 520302 **origin:** United States. **cultivar:** CA 68043-10D-6D-OTL.  
**pedigree:** SENTRY/ACC 63040/2/LEEDS,UC 310. **disease**  
**resistance:** Stem and yellow (stripe) rust. Spring  
Annual. Cultivated. Seed.
- PI 520303 **origin:** United States. **cultivar:** CA  
68044-26D-10D-3TL-3TL-4TL-OTL. **pedigree:** ACC  
63040/SENTRY/2/LEEDS,UC 313. **disease resistance:** Stem,  
leaf and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520304 **origin:** United States. **cultivar:** CA  
68041-6D-1TL-4TL-2TL-OTL. **pedigree:** SENTRY/ACC  
63040/2/LEEDS,UC 319. **disease resistance:** Leaf and  
yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520305 **origin:** United States. **cultivar:** CA  
68042-29D-7D-1TL-4TL-OTL. **pedigree:**  
SENTRY/66-1541/2/LEEDS,UC 320. **disease resistance:**  
Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520306 **origin:** United States. **cultivar:** SWM 6253-3Y-1K-OK.  
**pedigree:** HESBIGNON/NET/2/CANARIO SIB. **disease**  
**resistance:** Yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 520258 to 520419-continued

- 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/CHRIS/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 520318 **origin:** United States. **cultivar:** EBWN 75-82. **pedigree:** CIANO SIB/GALLO. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520319 **origin:** United States. **cultivar:** MN 7533. **pedigree:** FLETCHER/NORIN 66/2/KITT/3/MN 7125. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520320 **origin:** United States. **cultivar:** SWD 69462-00D-1P-2H-OP. **pedigree:** PITIC 62 SIB/MAZOE/2/CIANO/3/LILIFEN1. **disease resistance:** Yellow stripe rust. Spring Annual. Cultivated. Seed.
- PI 520321 **origin:** South Africa. **cultivar:** L 2453-1347. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520322 **origin:** Tunisia. **cultivar:** L 3200-2006. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520323 **origin:** United States. **cultivar:** MN 7529. **pedigree:** FLETCHER/NORTENO 66/2/KITT/3/MN 7125. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520324 **origin:** United States. **cultivar:** MN 7663. **pedigree:** KITT/MN 7222. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520325 **origin:** United States. **cultivar:** CASTAN. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520326 **origin:** Tunisia. **cultivar:** BUDIFEN. **pedigree:** TEMU 149-73. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520327 **origin:** Portugal. **cultivar:** AZTECA/MUCABA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520328 **origin:** United States. **cultivar:** MN 73167. **pedigree:** CRIM/\*2ERA/2/MN 6923S. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520329 **origin:** Mexico. **cultivar:** CM 34574-F-2M-1Y-1M-2Y-1M-1Y-OM. **pedigree:** KOEL SIB. **disease resistance:** Leaf and yellow (stripe) 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. Spring Annual. Cultivated. Seed.
- PI 520331 **origin:** Mexico. **cultivar:** CM 34742-E-2M-5Y-3M-500Y-100B-501Y-OM. **pedigree:** THRUSH SIB. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520332 **origin:** United States. **cultivar:** MN 7357. **pedigree:** CRIM/\*2ERA/2/MN 6923S. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520333 **origin:** Pakistan. **cultivar:** PESHAWAR 9. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520334 **origin:** Mexico. **cultivar:** SWM 4589-7Y-18M-1Y-OM. **pedigree:** MYNA SIB. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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. Spring Annual. Cultivated. Seed.
- PI 520336 **origin:** Mexico. **cultivar:** CM 31678-R-4Y-2M-15Y-OM. **pedigree:** BUCKBUCK SIB. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520337 **origin:** Mexico. **cultivar:** CM 26346-A-11Y-1M-3Y-1M-1Y-OB. **pedigree:** ANI SIB. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520338 **origin:** Mexico. **cultivar:** CM 34630-D-1M-9Y-6M-2Y-1M-OY. **pedigree:** SUNBIRD SIB. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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. Spring Annual. Cultivated. Seed.
- PI 520340 **origin:** Mexico. **cultivar:** CM 25988-8Y-3Y-1Y-OM. **pedigree:** FRONTANA/2/KENYA FARMER/NEWTATCH/3/\*2FEDERATION/2/KENYA 350 ADC92/GABO/4/BLUEBIRD/CHANATE. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

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/GOHLS 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. **disease**  
**resistance:** Stem rust. Spring Annual. 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. **disease resistance:** Leaf rust. Stem  
rust. Spring Annual. Cultivated. Seed.

PI 520258 to 520419-continued

- PI 520352 **origin:** United States. **cultivar:** ND 591. **pedigree:** BUTTE\*2/ND 507. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520353 **origin:** United States. **cultivar:** ND 592. **pedigree:** ND 551/2/BUTTE/ND 517. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520354 **origin:** Ethiopia. **cultivar:** BOOHAI,II CD 3862-1BS-1BS-ODZ. **pedigree:** CERES/3/21563/ND 61130/2/LEEDS/4/CANDIAL. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520355 **origin:** United States. **cultivar:** D 77189. **pedigree:** D 72110/WAKOOMA. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520356 **origin:** United States. **cultivar:** D 77197. **pedigree:** D 7224/CROSBY. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520357 **origin:** United States. **cultivar:** D 77200. **pedigree:** D 7224/CROSBY. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520358 **origin:** United States. **cultivar:** D 77204. **pedigree:** D 74116/CANDO. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520359 **origin:** Brazil. **cultivar:** 99449. **pedigree:** R 100166-77. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520360 **origin:** Australia. **cultivar:** CSP 44. **pedigree:** CONDOR SELECTION. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520361 **origin:** Mexico. **cultivar:** YAV SIB,CM 97-99-126M-1M-5Y-0M-8AU. **disease resistance:** Yellow (stripe) rust. Stem rust. Spring Annual. Cultivated. Seed.
- PI 520362 **origin:** Mexico. **cultivar:** CD 19711-D-1Y-3M-OY. **pedigree:** GUIL SIB/SNIPE SIB/GERARDO 449. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520363 **origin:** Mexico. **cultivar:** CD 24831-B-2Y-1M-1Y-OY. **pedigree:** SHWA SIB/MEXI 75/2/YAV SIB. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520258 to 520419-continued

- 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  
yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520366 **origin:** Mexico. **cultivar:** KEA SIB. **pedigree:** CM  
21335-C-9Y-3M-1Y-1Y-1Y-OB. **disease resistance:** Stem,  
leaf and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520367 **origin:** Mexico. **cultivar:** VEERY SIB,CM  
33027-F-15M-500Y-OM-87B-OY. **disease resistance:** Stem and  
yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520368 **origin:** Mexico. **cultivar:** CM 33203-K-9M-2Y-1M-1Y-2M-OY.  
**pedigree:** BOW SIB. **disease resistance:** Stem and leaf  
rust. Yellow (stripe) rust. Spring Annual. Cultivated.  
Seed.
- 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.  
Spring Annual. Cultivated. Seed.
- PI 520370 **origin:** Brazil. **cultivar:** CM 40454-11M-4Y-2M-3Y-OM.  
**pedigree:** NEELKANT SIB. **disease resistance:** Stem and  
yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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  
Annual. Cultivated. Seed.
- PI 520372 **origin:** Syria. **cultivar:** CM 5576-2S-3S-OS. **pedigree:**  
BLUEBIRD/NORTINO 67/2/CAKUDAD/SIETE CERROS. **disease**  
**resistance:** Stem and leaf rust. Spring Annual.  
Cultivated. Seed.
- PI 520373 **origin:** Syria. **cultivar:** C 18155/2\*NARINO 59. **pedigree:**  
CODE 70=133. **disease resistance:** Stem and leaf rust.  
Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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.  
Spring Annual. Cultivated. Seed.



PI 520258 to 520419-continued

- 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/BUEBOY/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/BUEBOY. **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/BUEBIRD/2 /CIANO/3/NADADORES 63/CHRIS SIB/5/SIETE CERROS. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520258 to 520419-continued

- 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). **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- 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-2S-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 520258 to 520419-continued

- 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. Spring Annual. Cultivated. Seed.
- 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/PINGUINO 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. Spring Annual. Cultivated. Seed.
- 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. **pedigree:** JOB SIB/2/LKE/LD 390/3/CHIPANGO 53/4/CRANE SIB/5/IBIS SIB/6/ USDA 0580. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520258 to 520419-continued

- 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 520410 **origin:** Syria. **cultivar:** CD 4354-G-4Y-2M-OY-OKE. **pedigree:** D 66/270/YEMEN/CRANE/4/PELICANO/5/MAGH. **disease resistance:** Stem and yellow (stripe) rust. Leaf 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(F1)/2/6540/\*2 BARRIGON YAQUI ENANO. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520414 **origin:** Syria. **cultivar:** ICD 7780-5AP-OSH-OAP. **pedigree:** AVENTORO SIB/D 10. **disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520415 **origin:** Syria. **cultivar:** SYRIAN DURUM 27. **pedigree:** GANSO SIB/CRANE SIB,D 27676-6M-2Y-OM-500M-OY. **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.

PI 520258 to 520419-continued

PI 520418 **origin:** Brazil. **cultivar:** IAPAR 3(ARACATU). **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

PI 520419 **origin:** Brazil. **cultivar:** OC 731070. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.

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,?-48M-ON-OY. **disease resistance:** Yellow (stripe) rust, stem rust, powdery mildew. Spring Annual. Cultivated. Seed.

PI 520421 **origin:** Mexico. **cultivar:** NAVOJOA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520422 **origin:** Mexico. **cultivar:** NAVOJOA SIB. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520423 **origin:** Mexico. **cultivar:** DRIRA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520424 **origin:** Mexico. **cultivar:** ARMADILLO. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520425 **origin:** Mexico. **cultivar:** LIEBRE SIB. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Powdery mildew. Spring Annual. Cultivated. Seed.

PI 520426 **origin:** Mexico. **cultivar:** BOA SIB. **disease resistance:** Stem rust and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520427 **origin:** Mexico. **cultivar:** CANANEA 79. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520428 **origin:** Mexico. **cultivar:** CABORCA 79. **disease resistance:** Leaf and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520420 to 520488-continued

- PI 520429 **origin:** Mexico. **cultivar:** X 33470-C-14-3M-2Y-2M-OY.  
**pedigree:** W 74.103/ADDAX/3/BULGURLU  
SIB/2/MAYO/\*2ARMIDELLO SIB/4/IRA. **disease resistance:**  
Stem and yellow (stripe) rust. Powdery mildew. Spring  
Annual. Cultivated. Seed.
- PI 520430 **origin:** Canada. **cultivar:** OAC WINT R1. **disease**  
**resistance:** Yellow (stripe) rust. Powdery mildew. Winter  
Annual. Cultivated. Seed.
- PI 520431 **origin:** Australia. **cultivar:** SATU. **disease resistance:**  
Powdery mildew, stem rust, yellow (stripe) rust. Spring  
Annual. Cultivated. Seed.
- PI 520432 **origin:** Australia. **cultivar:** CCORONG. **disease**  
**resistance:** Powdery mildew, stem rust, yellow (stripe)  
rust. Spring Annual. Cultivated. Seed.
- PI 520433 **origin:** Brazil. **cultivar:** PFT 766. **pedigree:**  
MAYO\*2/AMADELLO/2/CML,X 8386-D-2Y-OM-101B-107Y-OY(PANDA).  
**disease resistance:** Stem and yellow (stripe) rust.  
Spring Annual. Cultivated. Seed.
- PI 520434 **origin:** Brazil. **cultivar:** PFT 7882. **pedigree:**  
MAYO\*2/AMADELLO/2/CML,X 8386-D-2Y-OM-101B-107Y-OY(PANDA).  
**disease resistance:** Stem and leaf rust. Powdery mildew.  
Spring Annual. Cultivated. Seed.
- PI 520435 **origin:** Brazil. **cultivar:** X 29306-3F-9F-4FS-1FS-OYO,PFT  
811. **pedigree:** YAQUI ENANO/2/MAYO/AMADELLO. **disease**  
**resistance:** Powdery mildew, stem and yellow (stripe)  
rust. Spring Annual. Cultivated. Seed.
- PI 520436 **origin:** Brazil. **cultivar:** DELFIN 20S, PFT 8216. **disease**  
**resistance:** Powdery mildew, stem and yellow (stripe)  
rust. Spring Annual. Cultivated. Seed.
- PI 520437 **origin:** Brazil. **cultivar:** DELFIN 80, PFT 8036. **disease**  
**resistance:** Powdery mildew, stem and yellow (stripe)  
rust. Spring Annual. Cultivated. Seed.
- PI 520438 **origin:** Brazil. **cultivar:** PFT 80380,DELFIN/PFT 7717,FT  
031-6Y0. **disease resistance:** Powdery mildew, stem and  
yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520439 **origin:** Brazil. **cultivar:** PFT 817. **pedigree:**  
MAYO\*2/AMADELLO\*2/3/MAYO\*2/AMADELLO/2/CML FT  
116-9FS(1-12) FS. **disease resistance:** Powdery mildew,  
stem and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.

PI 520420 to 520488-continued

- PI 520440 **origin:** Brazil. **cultivar:** PFT 8112. **pedigree:** MPE SIB/3/MAYO\*2/AMADELLO/A/CALIDAD, X 48387-3YO-5FS(1-10)FS ,PFT 80387. **disease resistance:** Yellow (stripe) rust, stem rust, powdery mildew. Spring Annual. Cultivated. Seed.
- PI 520441 **origin:** Brazil. **cultivar:** PFT 8116. **pedigree:** YAQUI ENANO/2/MAYO/AMADELLO,X 29306-1F-7FS-10FS(1-12)FS. **disease resistance:** Powdery mildew, stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520442 **origin:** Brazil. **cultivar:** PFT 8128. **pedigree:** PANDA/SHEPHERD,X 51771-10Y-21YO-2F-OYO. **disease resistance:** Powdery mildew, stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520443 **origin:** Brazil. **cultivar:** PFT 80110. **pedigree:** MAYO\*2/AMADELLO/2/BULGURLU,X 15490. **disease resistance:** Powdery mildew, stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520444 **origin:** Mexico. **cultivar:** X-308-Y-2M. **pedigree:** ARMADILLO SIB, PM-13. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520445 **origin:** Mexico. **cultivar:** CINNAMON. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520446 **origin:** Mexico. **cultivar:** ARMADILLO SIB. **pedigree:** X-308-64-2M-100Y-4B-ON-100B-ON. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520447 **origin:** Mexico. **cultivar:** X 2802-38N-5M-6N-6M-OY-OM. **pedigree:** MAYO/\*2ARMIDILLO SIB. **disease resistance:** Yellow (stripe) and stem rust. Spring Annual. Cultivated. Seed.
- PI 520448 **origin:** Mexico. **cultivar:** X 2832-41N-1M-5N-1M-OY-OM. **pedigree:** MAYO /\*2ARMIDILLO SIB. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520449 **origin:** Mexico. **cultivar:** X 2802-75N-2M-7N-1M-OY-OM. **pedigree:** MAYO/\* ARMIDILLO SIB. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520450 **origin:** Mexico. **cultivar:** X 2832-24N-3M-7N-4M-OY-OM. **pedigree:** MAYO/\*2ARMIDILLO SIB. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520420 to 520488-continued

- PI 520451 **origin:** Mexico. **cultivar:** X 2802-38n-3m-6n-5m-oy-om.  
**pedigree:** MAYO /\*2 ARMIDILLO SIB. **disease resistance:**  
Stem and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520452 **origin:** Mexico. **cultivar:** X 2802-38N-3M-6N-6M-OY-OM.  
**pedigree:** MAYO /\*2 ARMIDILLO SIB. **disease resistance:**  
Stem and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520453 **origin:** Mexico. **cultivar:** X 2802-38N-3M-7N-6M-OY-OM.  
**pedigree:** MAYO/\*2 ARMIDILLO SIB. **disease resistance:**  
Stem and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520454 **origin:** Mexico. **cultivar:** X 2148-1N-1M-OY-OM. **pedigree:**  
MAYO/\* ARMIDILLO SIB. **disease resistance:** Stem and  
yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520455 **origin:** Mexico. **cultivar:** X 2802-38N-2M-6N-2M-OY-OM.  
**pedigree:** MAYO/\*2 ARMIDILLO SIB. **disease resistance:**  
Stem and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520456 **origin:** Mexico. **cultivar:** X 1648-2N-1M-OY-OM. **pedigree:**  
JOCO R,INIA/ARMADILLO SIB. **disease resistance:** Stem and  
yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520457 **origin:** Mexico. **cultivar:** X 284-100N-OM. **pedigree:**  
KANGAROO/2/MENTANA ENANO 20/TRITICUM PERSICUM. **disease**  
**resistance:** Stem and yellow (stripe) rust. Spring  
Annual. Cultivated. Seed.
- PI 520458 **origin:** Mexico. **cultivar:** X 2148-1N-2M-OY-OM. **pedigree:**  
MAYA II/ARM SIB. **disease resistance:** Stem and yellow  
(stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520459 **origin:** Ecuador. **cultivar:** X  
16215-103B-101Y-3Y-1M-1Y-OM(TRIT). **pedigree:** BUCY/BGL  
SIB. **disease resistance:** Powdery mildew and stem rust.  
Spring Annual. Cultivated. Seed.
- PI 520460 **origin:** Ecuador. **cultivar:** INIAP MANA. **pedigree:**  
(TRITICALE). **disease resistance:** Powdery mildew and stem  
rust. Leaf and yellow (stripe) rust. Spring Annual.  
Cultivated. Seed.
- PI 520461 **origin:** Mexico. **cultivar:** X 2802F-12M-1N-1M-OY.  
**pedigree:** M2A. **disease resistance:** Stem and leaf rust.  
Yellow (stripe) rust. Spring Annual. Cultivated. Seed.



PI 520420 to 520488-continued

- 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:** 1  
A. **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:** M1A. **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:** BURRA. **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.

PI 520420 to 520488-continued

- PI 520474 **origin:** Mexico. **cultivar:** X 12257-1N-OM. **pedigree:** RAM SIB,IRA/BUITRE. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520475 **origin:** Mexico. **cultivar:** X 10893-A-1M-1Y-OY. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520476 **origin:** Mexico. **cultivar:** X 8816-3Y-3M-2Y-OY. **pedigree:** BONGO SIB,MAYO/2/ARMADILLO/KOALA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520477 **origin:** Mexico. **cultivar:** X 11066-A-6M-100Y-101B-100Y-OT. **pedigree:** BGC/\*2BULK ENANO. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520478 **origin:** Mexico. **cultivar:** DRIRA. **pedigree:** X 7110-1N-37M-ON-100Y-OY. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520479 **origin:** Mexico. **cultivar:** GOQUI. **pedigree:** X 1648-2N-1M-2Y-2M-2Y-1M-OY. **disease resistance:** Stem and yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520480 **origin:** Mexico. **cultivar:** X 2802-41N-1M-2N-2M-2Y-2M-1Y-OM. **pedigree:** MAYO/\*2ARMIDILLO SIB. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520481 **origin:** Mexico. **cultivar:** FS 1795. **pedigree:** 1N-OM. **disease resistance:** Stem and yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520482 **origin:** Mexico. **cultivar:** FS 3937. **pedigree:** 27M-ON-3M-OY. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520483 **origin:** Mexico. **cultivar:** CHIVA SIB. **disease resistance:** Stem and leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520484 **origin:** Mexico. **cultivar:** JUANILLO 207. **disease resistance:** Yellow (stripe) rust. Powdery mildew. Spring Annual. Cultivated. Seed.
- PI 520485 **origin:** Mexico. **cultivar:** X 24369-4H-1Y-1M-1Y-OM. **pedigree:** 1975(5)/LINCE. **disease resistance:** Yellow (stripe) rust. Powdery mildew. Leaf and stem rust. Spring Annual. Cultivated. Seed.

PI 520420 to 520488-continued

- 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  
Annual. Cultivated. Seed.
- 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.  
Spring Annual. Cultivated. Seed.
- PI 520488 origin: Nepal. cultivar: JUANILLO 95. pedigree: X  
21295-OAP,NL 528. disease resistance: Powdery mildew.  
Spring Annual. Cultivated. Seed.

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:  
Stem rust. Spring Annual. Cultivated. Seed.
- PI 520490 origin: United States. cultivar: B TSR24AG. 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  
SEL) (SR 27). disease resistance: Stem rust. Spring  
Annual. Cultivated. Seed.
- PI 520492 origin: Canada. cultivar: RL 5045(SR 33). pedigree:  
TETRA CANTHATCH/AEGILOPS SQUARROSA. disease resistance:  
Stem rust. Spring Annual. Cultivated. Seed.
- PI 520493 origin: United States. cultivar: B TSRGTGT,BAART/GAMUT(MN  
SEL)(SR GT). disease resistance: Stem rust. Spring  
Annual. 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 520495 **origin:** South Africa. **cultivar:** CMA 14793-W2-W9-G7,W 240. **pedigree:** ARTHUR TYPE.FC/TRANSFER/BULGARIA 88. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520496 **origin:** South Africa. **cultivar:** CMA 14793-W2-W11-G7,W 241. **pedigree:** ARTHUR TYPE.FC/TRANSFER/BULGARIA 88. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520497 **origin:** Brazil. **cultivar:** BR 4. **pedigree:** IAS 20\*3/SINVALOCHO GAMA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520498 **origin:** Brazil. **cultivar:** JACUI. **pedigree:** S 8/TOROPI. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520499 **origin:** Uruguay. **cultivar:** ESTANZUELA DORADO. **pedigree:** ESTANZUELA TARARIRAS/3/TOBARI/2/KLEIN PETISO/RAFAELA MAG. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520500 **origin:** United States. **cultivar:** D 8012. **pedigree:** D 75149/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520501 **origin:** United States. **cultivar:** D 8016. **pedigree:** D 75149/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520502 **origin:** United States. **cultivar:** D 8019. **pedigree:** D 73121/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520503 **origin:** United States. **cultivar:** D 8034. **pedigree:** D 7753/D 73121. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520504 **origin:** United States. **cultivar:** D 8082. **pedigree:** D 772/D 7724. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520505 **origin:** United States. **cultivar:** D 80152. **pedigree:** D 773/CALVIN. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520506 **origin:** United States. **cultivar:** D 80162. **pedigree:** D 774/D 7224. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520489 to 520596-continued

- PI 520507 **origin:** United States. **cultivar:** D 8172. **pedigree:** ROLETTE/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520508 **origin:** United States. **cultivar:** D 8191. **pedigree:** D 7690/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520509 **origin:** United States. **cultivar:** D 8193. **pedigree:** D 7690/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520510 **origin:** United States. **cultivar:** D 8194. **pedigree:** D 7690/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520511 **origin:** United States. **cultivar:** D 81114. **pedigree:** D 7734/D 75149. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520512 **origin:** United States. **cultivar:** D 81151. **pedigree:** D 783/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520513 **origin:** United States. **cultivar:** D 81154. **pedigree:** D 785/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520514 **origin:** United States. **cultivar:** D 81183. **pedigree:** LLOYD/CANDO. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520515 **origin:** United States. **cultivar:** D 8212. **pedigree:** D 7483/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520516 **origin:** United States. **cultivar:** D 8219. **pedigree:** D 7618/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520517 **origin:** United States. **cultivar:** D 8257. **pedigree:** PI 166308/WARD. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520518 **origin:** United States. **cultivar:** D 8269. **pedigree:** D 77200/VIC. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520519 **origin:** United States. **cultivar:** D 8291. **pedigree:** D 773/COLOTANA. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520489 to 520596-continued

- PI 520520 **origin:** France. **cultivar:** FR 85-1. **pedigree:** CHAMPLEIN/ARONDE(68.8). **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520521 **origin:** France. **cultivar:** FR 85-2. **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/\*2CAPPELLE/2/NAINARI 60 SIB. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520523 **origin:** France. **cultivar:** FR 85-4. **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. **pedigree:** CHAMPLEIN/ARONDE(68)/4/AEGILOPS VENTRICOSA/TRITICUM PERSICUM/MARNE\*3/3/MOISSON(5)/5/R 26.4. **disease resistance:** Leaf rust. Yellow (stripe) rust. Powdery mildew. Spring Annual. Cultivated. Seed.
- PI 520526 **origin:** United States. **cultivar:** ND 600. **pedigree:** LEW/2/TIOGA\*3/FO 629/3/TIOGA/RL 6043. **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 520532 **origin:** United Kingdom. **cultivar:** SOLITAIRE. **pedigree:** SICCO/SANDOWN(YR 14). **disease resistance:** Powdery mildew. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520533 **origin:** Brazil. **cultivar:** BR 14. **pedigree:** IAS 63/ALONDRA SIB/2/GABOTO/LAGOA VERMELHA. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520534 **origin:** Brazil. **cultivar:** CEP 11. **pedigree:** PF 6968\*2/HADDEN. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520535 **origin:** Brazil. **cultivar:** PF 8372. **pedigree:** PF 6968\*2/HADDEN. **disease resistance:** Leaf rust. Stem rust. Spring Annual. Cultivated. Seed.
- PI 520536 **origin:** Brazil. **cultivar:** PF 83142. **pedigree:** IAC 5\*2/3/CNT 7\*3/LANGDON/2/IAC 5/HADDEN. **disease resistance:** Leaf rust. Stem rust. Spring Annual. Cultivated. Seed.
- PI 520537 **origin:** Brazil. **cultivar:** PF 83226. **pedigree:** CNT 7\*3/HADDEN. **disease resistance:** Leaf rust. Stem rust. Powdery mildew. Spring Annual. Cultivated. Seed.
- PI 520538 **origin:** Brazil. **cultivar:** PF 83322. **pedigree:** IAS 55\*6/ALONDRA SIB. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520539 **origin:** Brazil. **cultivar:** PF 83491. **pedigree:** LANGDON\*6/KAVKAZ. **disease resistance:** Stem rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520540 **origin:** Brazil. **cultivar:** B 8481. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520541 **origin:** Brazil. **cultivar:** B 8412. **disease resistance:** Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520542 **origin:** United States. **cultivar:** SD 2961(SR 5,6,WDR). **pedigree:** BUTTE/2/OLAF/MN 6792. **disease resistance:** Leaf rust. Stem rust. Spring Annual. Cultivated. Seed.
- PI 520543 **origin:** Yugoslavia. **cultivar:** JARKA,NS. **pedigree:** 975/SIETE CERROS. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.

PI 520489 to 520596-continued

- PI 520544 **origin:** Chile. **cultivar:** LELIJA. **pedigree:** MIRONOVSKAYA 808/4/(SORT 513-66)/MEX SIB/2/NEWTURK/GRAND PRIZE/3/THATCHER/KENTANA/GRAND PRIZE. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520545 **origin:** Yugoslavia. **cultivar:** NS 54-17. **pedigree:** KAVKAZ/SIETE CERROS. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520546 **origin:** South Africa. **cultivar:** PALMIET. **pedigree:** SCHLANSTEDT\*3/SCOUT\*5/AGENT. **disease resistance:** Stem rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520547 **origin:** South Africa. **cultivar:** W 82-1. **pedigree:** SCHLANSTEDT\*3/SCOUT\*5/AGENT/3/KASTEEL/PY 487. **disease resistance:** Stem and leaf rust. Spring Annual. Cultivated. Seed.
- PI 520548 **origin:** South Africa. **cultivar:** W 82-7. **pedigree:** SKEMER/5569/2/6117/5058. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520549 **origin:** South Africa. **cultivar:** W 84-10. **pedigree:** E 2163/2/BAJIO 66/INIA 66/3/74 ISWRN-141(II-62-68/TOBARI 66/2/FLETCHER/CIANA 67.MN 6985S). **disease resistance:** Stem rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520550 **origin:** South Africa. **cultivar:** W 84-11. **pedigree:** KENYA 20/MENGAVI/2/6649. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520551 **origin:** Nepal. **cultivar:** CM 2133E-9Y-3M-1Y-OB. **pedigree:** TEZANOS PINTOS PRECOZ\*2/ANDES ENANO/2/JARAL 66 KAVKAZ. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520552 **origin:** Netherlands Antilles. **cultivar:** BOBWHITE SIB,CM33203-K-9M-9Y-15M-1M-\*\*\*. **disease resistance:** Stem rust. Leaf rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520553 **origin:** Nepal. **cultivar:** VEERY 3. **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520554 **origin:** Nepal. **cultivar:** BOW SIB,CM 33203-1Y-1M-2Y-500M-OY. **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.



PI 520489 to 520596-continued

- PI 520555 **origin:** Nepal. **cultivar:** ALONDRA SIB. **pedigree:** CM 683A-1Y-1M-3Y-11M-OY-2YB-11MM-OMN. **disease resistance:** Stem rust. Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520556 **origin:** Nepal. **cultivar:** KAVKAZ/PAK 20. **disease resistance:** Yellow (stripe) rust. Spring Annual. 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. **disease resistance:** Powdery mildew. Spring Annual. Cultivated. Seed.
- PI 520559 **origin:** Pakistan. **cultivar:** CM 40577-14Y-1Y-3M-OY. **pedigree:** V 81159.CIANO/8156/2/TOBARI/CIANO/3/2300/2/LERMA ROJO/8156/4/PAVON SIB. **disease resistance:** Stem rust. Leaf rust. Spring Annual. 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. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520561 **origin:** Chile. **cultivar:** A 16345-6P-3P-6P-2P. **pedigree:** TOQUIFEN/4777\*2/4/FRONTANA/2/KENYA 58/NEWTATCH/3/NORIN 40 BREVOR/5/FRONTANA/2/KENYA 58/NEWTATCH/3/YAQUI 50/6/HUEQUEN /3/SONORA 64/TEZANOS PINTOS PRECOZ/2/NAINARI 60, PLA 5282. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520562 **origin:** Chile. **cultivar:** CM 46725-3P-1P-3P-2P. **pedigree:** ZOPILOTE SIB/4/TOROP/2/CIANO/NOROESTE 66/3/BUEBIRD/CIANO /5/CIANO SIB/3/PENJAMO 62/2/GALLO/BLUETIT/6/PAVON SIB, PLA 6682. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520563 **origin:** Chile. **cultivar:** A 16894-2P-2P-3P. **pedigree:** FROCOR/KENYA 58/2/SONORA 64/5/CIANO SIB/4/NAINARI/CHRIS/2/ CIANO SIB/3/GALLO, PLA 3782. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- PI 520564 **origin:** Chile. **cultivar:** A 17331-2P-2P-3P,PLA 1833. **pedigree:** CIANO SIB/3/LERMA ROJO/SONORA 64/2/NAPO 63. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.

PI 520489 to 520596-continued

- 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.  
**pedigree:** 21563/2/LAKOTA ENANO/LD 390/3/CHAPALA 67/5/CRANE SIB/GANSO SIB/GANSO SIB/3/JORI 69 SIB/2/LD 357 ENANO/TEHUACAN/4/GALLO SIB, PLAC 3481. **disease resistance:** Stem rust. Spring Annual. Cultivated. Seed.
- 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(Fl)/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(Fl)/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 520489 to 520596-continued

- PI 520575 **origin:** Chile. **cultivar:** T 15105-T-2P-1T. **pedigree:** KAVKAZ/3/BLUEBIRD/CHANATE/2/TORIM 73/4/TEMU 36-78,TEMU 192-83. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520576 **origin:** Chile. **cultivar:** T 15105-T-3P-2T. **pedigree:** KAVKAZ/3/BLUEBIRD/CHANATE/2/TORIM 73/4/TEMU 36-78,TEMU 193-83. **disease resistance:** Yellow (stripe) rust. Spring Annual. Cultivated. Seed.
- PI 520577 **origin:** Chile. **cultivar:** T 15120-T-5P-1T. **pedigree:** KAVKAZ/3/BLUEBIRD/CHANATE/2/TORIM 73/4/TEMU 36-78,TEMU 197-83. **disease resistance:** Yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520578 **origin:** Chile. **cultivar:** T 15120-T-5P-2T. **pedigree:** KAVKAZ/3/BLUEBIRD/CHANATE/2/TORIM 73/4/TEMU 36-78,TEMU 198-83. **disease resistance:** Yellow (stripe) rust. Leaf rust. Spring Annual. Cultivated. Seed.
- PI 520579 **origin:** United States. **cultivar:** CHINESE SR 32 AS. **disease resistance:** Stem rust. Winter Annual. Cultivated. Seed.
- PI 520580 **origin:** United States. **cultivar:** LR 1 LR 2D(WI). **pedigree:** MALAKOF/\*8WICHITA/2/LOROS/\*8WICHITA.KS 78R5. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 520581 **origin:** United States. **cultivar:** LR 2A LR 3(WI). **pedigree:** WEBSTER/\*7WICHITA/2/MEDITERRANEAN/10.WICHITA.KS 78R4. **disease resistance:** Leaf rust. Winter Annual. Cultivated. Seed.
- PI 520582 **origin:** United States. **cultivar:** COLLAFEN CROSS. **pedigree:** COLLAFEN/BEZOSTAIA/2/SUWEON 92/CI 13645/3/NAINARI/4/EMU SIB(F1)/5/CIANO SIB/OLESEN//6/55-338/3/ANDES 3 ENANO/PITIC 612/2/LERMA ROJO 64/4/II-184-27. **disease resistance:** Powdery mildew. Winter Annual. Cultivated. Seed.
- PI 520583 **origin:** Chile. **cultivar:** T 15441-OT-9T-1T,CAR 2884. **pedigree:** RIEBESEL 47-51/MARQUEFEN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 520584 **origin:** Chile. **cultivar:** T 15516-OT-10T-2T,CAR 2910. **pedigree:** TALAFEN/MANQUEFEN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.
- PI 520585 **origin:** Chile. **cultivar:** T 15635-OT-4T-1T,CAR 2920. **pedigree:** CAR 2915/BUDIFEN. **disease resistance:** Yellow (stripe) rust. Winter Annual. Cultivated. Seed.

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.

**donor id:** KS204. **origin:** United States. **pedigree:** Derived from broad-based population NC-83-2. **other id:** GP-208. **group:** CSR-ALFALFA. **remarks:** ASI score 5.92 for fall dormancy at St. Paul, Minnesota. Nematode resistance: Stem (*Ditylenchus dipsaci*). **disease resistance:** Anthracnose (race 1), bacterial & *Fusarium* wilts. Downy mildew and *Phytophthora* root rot. **insect resistance:** Pea, blue alfalfa, & spotted alfalfa aphids. Perennial. Breeding Material. Seed.

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.

**donor id:** 73052-211-1-1-HIDT2-B-B. **origin:** India. **cultivar:** ICPL 87. **pedigree:** ICP/73052 (T.21/JA 277). **other id:** CV-76. **group:** CSR-OTHER LEGUMES. **remarks:** Plants high-yielding, semi-spreading, smaller (80-90cm) than long-duration types, grown in high population density. Maturity 110 to 130 days after sowing. Monoculture. Growth habit determinate. Pods borne in clusters at top of canopy. Flowers yellow. Pods green with purple streaks. Seeds large (10g/100), light brown, rounded in outline but slightly flattened. Susceptible to pod borer (*Heliothis armigera*). **disease resistance:** Tolerant to wilt (*Fusarium udum*). Cultivar. Seed.

# Scientific Name Cross Reference

Acacia sp.	516479	Carya texana	518155
Adenocarpus sp.	516480	Ceanothus herbaceus	
Agropyron cristatum	516481-516482	var. pubescens	514676
Agrostis sp.	516483-516485	Cenchrus ciliaris	516516-
Allium sativum	515971-515976	516517	
Amaranthus cruentus	515959	Chenopodium quinoa	518441-
Amorpha canescens	514675	518442	
Anthyllis tetraphylla	516486-516487	Cicer arietinum	516518-516519,
Anthyllis vulneraria	516488-516489	518247-518260	
Arctagrostis latifolia	518659	Cicer pinnatifidum	518860-
Arrhenatherum elatius	517195-517196	518863	
Artemisia herba-alba	516490	Citrullus lanatus	518606-
Astragalus asterias	516491	518612	
Astragalus hamosus	516492-516495	Cordeauxia edulis	516520
Astragalus membranaceus	515968	Cornus mas	516476
Astragalus sp.	516496-516502	Coronilla minima	516521
Atriplex halimus	516503-516504	Coronilla scorpioides	518443
Atriplex nummularia	516505	Coronilla sp.	516522-516523
Avena bromoides	516506-516507	Crambe abyssinica	514649-
Avena nuda	518513	514650	
Avena sativa	515922-515947, 518512	Cucumis melo	518444
Beta vulgaris	515962-515965, 518156-518170, 518643-518645, 518779-518781	Cucumis sativus	518848-518854
Beta vulgaris subsp. maritima	518298-518440	Cucurbita maxima	518678-518681
Bituminaria bituminosa	516508	Cucurbita moschata	518682-
Brachypodium phoenicoides	516509-516513	518686	
Brassica oleracea var. capitata	518836-518838	Cucurbita pepo	518687-518689
Brassica pekinensis	518839-518847	Cyclanthera pedata	518690-
Caesalpinia gilliesii	516514	518691	
Cajanus cajan	518243-518246, 520598	Cymbopogon schoenanthus	516524-
Calamovilfa longifolia	518499-518501	516525	
Calicotome villosa	516515	Cytisus multiflorus	516526
Carthamus tinctorius	514618-514632	Cytisus sp.	516527
Carya aquatica	517975-517976	Dactylis glomerata	516177,
Carya cathayensis	517977	516528-516546	
Carya hybrid	517978-517991	Dasypyrum hordeaceum	516547
Carya illinoensis	517992-518145	Daucus carota subsp. sativus	515990-516001
Carya laciniata	518146-518148	Deschampsia caespitosa	518658
Carya ovata	518149-518150	Ebenus pinnata	516548-516549
Carya sp.	518151-518154	Ehrharta calycina	516550
		Elymus lanceolatus	518498
		Elymus trachycaulus	516183
		Elytrigia elongata	516551-
		516552	
		Elytrigia intermedia	516553-
		516554	
		Elytrigia juncea	516555-516556
		Elytrigia spicata	516184-
		516190	
		Festuca arundinacea	514633-
		514643, 516557-516566	
		Festuca longifolia	518649
		Festuca occidentalis	518819
		Festuca pratensis	516567-
		516570	

<i>Festuca rubra</i>	516571		516612, 517197-517201, 518447
<i>Festuca rubra</i> subsp. <i>commutata</i>	518650		<i>Lotus creticus</i> 516613
<i>Genista pseudopilosa</i>	516572		<i>Lotus cytisoides</i> 516614-516616
<i>Glycine max</i>	514671-514672,		<i>Lotus ornithopodioides</i> 516617-516618
	515960-515961, 518284-518297,		<i>Lotus pedunculatus</i> 517202
	518663-518677, 518702-518729,		<i>Lotus sp.</i> 516619-516621, 517203
	518750-518754, 518756-518759,		<i>Lupinus albus</i> 516622-516630, 517204
	518771-518772, 518825-518833		<i>Lupinus luteus</i> 516631-516638
<i>Glycine soja</i>	514674, 518278-518283		<i>Lupinus sp.</i> 516639, 517205
<i>Gossypium hirsutum</i>	517927-517946, 518655, 518761-518768		<i>Lycopersicon esculentum</i> 514644-514648
<i>Hedysarum coronarium</i>	516573-516583, 518445-518446		<i>Medicago arborea</i> 516640
<i>Helianthus annuus</i>	517949-517959, 518651-518654, 518773-518778		<i>Medicago ciliaris</i> 516641-516643
<i>Helianthus hybrid</i>	518661		<i>Medicago constricta</i> 516644
<i>Hippocrepis scabra</i>	516584-516588		<i>Medicago hybrid</i> 516645-516648
<i>Hippocrepis sp.</i>	516589-516590		<i>Medicago intertexta</i> 516649-516652
<i>Hordeum brevisubulatum</i>	518567		<i>Medicago italica</i> 516916-516922
<i>Hordeum bulbosum</i>	516591		<i>Medicago laciniata</i> 516653-516679
<i>Hordeum vulgare</i>	515966-515967, 516198-516199, 516592, 518550, 518556-518566, 518635-518642		<i>Medicago littoralis</i> 516680-516696, 517206
<i>Humulus lupulus</i>	518760		<i>Medicago lupulina</i> 516697-516706, 517207-517213
<i>Hyparrhenia hirta</i>	516593-516598		<i>Medicago marina</i> 516707-516712
<i>Hyparrhenia sp.</i>	516599		<i>Medicago minima</i> 516713-516719
<i>Ipomoea batatas</i>	518473-518480		<i>Medicago monantha</i> 515952
<i>Ipomoea cf. pedatisecta</i>	518482		<i>Medicago murex</i> 516720-516721
<i>Ipomoea sp.</i>	518483		<i>Medicago orbicularis</i> 516722-516727
<i>Ipomoea squamosa</i>	518484-518485		<i>Medicago polymorpha</i> 516728-516735, 517214-517220
<i>Ipomoea tiliacea</i>	518486-518491		<i>Medicago polymorpha</i> var. <i>vulgaris</i> 516736
<i>Ipomoea trichocarpa</i>	518492-518495		<i>Medicago rigidula</i> 516737-516753
<i>Ipomoea wrightii</i>	518496		<i>Medicago sativa</i> 515954-515958, 516179-516180, 516754-516905, 517221-517254, 518656, 520597
<i>Ipomoea x leucantha</i>	518481		<i>Medicago sativa</i> subsp. <i>glomerata</i> 516906
<i>Koeleria sp.</i>	516600		<i>Medicago scutellata</i> 516907, 517255
<i>Koeleria splendens</i>	516601		<i>Medicago sp.</i> 516908-516911
<i>Lagenaria siceraria</i>	518692		<i>Medicago suffruticosa</i> 516912-516915
<i>Lavandula sp.</i>	516602-516603		<i>Medicago truncatula</i> 516923-516950, 517256-517257
<i>Lens culinaris</i>	515969, 518261, 518731-518734		<i>Medicago turbinata</i> 516951-516978
<i>Lepidium sp.</i>	516604		<i>Melica ciliata</i> 516979-516984
<i>Leymus cinereus</i>	516191-516192		<i>Melica sp.</i> 516985
<i>Leymus triticoides</i>	516193-516195		<i>Melilotus italica</i> 516986
<i>Liriodendron tulipifera</i>	516477		<i>Melilotus sp.</i> 516987
<i>Lolium multiflorum</i>	516178, 517948		
<i>Lolium perenne</i>	516605-516606, 518662		
<i>Lolium sp.</i>	516607-516608		
<i>Lotus corniculatus</i>	516609-		

<i>Moricandia arvensis</i>		<i>Setaria italica</i>	517051
subsp. <i>suffruticosa</i>	516988	<i>Sicana odorifera</i>	518693
<i>Nicotiana tabacum</i>	518745-	<i>Solanum acaule</i>	518730
518746		<i>Solanum aethiopicum</i>	518694
<i>Onobrychis argentea</i>	516989-	<i>Solanum brachistotrichum</i>	
516993		518629-518630	
<i>Onobrychis</i> sp.	516994	<i>Solanum cardiophyllum</i>	518631-
<i>Ononis natrix</i>	516995	518633	
<i>Ononis</i> sp.	516996-516997	<i>Solanum giganteum</i>	518695
<i>Ornithopus compressus</i>	516998-	<i>Solanum marginatum</i>	518696
517000		<i>Solanum nayaritense</i>	518634
<i>Ornithopus pinnatus</i>	517001	<i>Solanum nutans</i>	518697
<i>Ornithopus sativus</i>	517002-	<i>Solanum robustum</i>	518698
517003		<i>Solanum sodomeum</i>	518699
<i>Oryza sativa</i>	514276-514277,	<i>Solanum tuberosum</i>	515919-
514651-514670		515921,518592	
<i>Oryzopsis caerulescens</i>	517004-	<i>Solanum urticans</i>	518700
517006		<i>Sorghastrum nutans</i>	514673
<i>Oryzopsis miliacea</i>	517007-	<i>Sorghum bicolor</i>	514278-514600,
517015		515580-515909,518514-518549,	
<i>Panicum amarum</i>	515948,518820-	518657	
518821		<i>Sorghum</i> sp.	514601-514617,
<i>Panicum miliaceum</i>	516181,	515910-515918	
517016-517019		<i>Sorghum</i> x <i>drummondii</i>	516182
<i>Pennisetum divisum</i>	517020	<i>Stipa tenacissima</i>	517052
<i>Pennisetum glaucum</i>	517021-	<i>Tetragonolobus maritimus</i>	
517024,518646		var. <i>siliquosus</i>	517053
<i>Pennisetum purpureum</i>	517947	<i>Thuja occidentalis</i>	518497
<i>Periploca laevigata</i>	517025	<i>Trifolium abyssinicum</i>	516202-
<i>Phalaris aquatica</i>	517026-	516203,517260,517701	
517027		<i>Trifolium africanum</i>	516204-
<i>Phalaris</i> sp.	517028-517029	516208	
<i>Phalaris truncata</i>	517030	<i>Trifolium aintabense</i>	516209
<i>Phaseolus vulgaris</i>	518171-	<i>Trifolium albopurpureum</i>	516210-
518242,518747		516213	
<i>Phleum pratense</i>	517258-517259	<i>Trifolium alexandrinum</i>	516214-
<i>Phleum</i> sp.	517031	516217,517054-517068	
<i>Pisum sativum</i>	518262-518263	<i>Trifolium alpestre</i>	516218-
<i>Pisum sativum</i> var. <i>arvense</i>		516220	
517922-517926		<i>Trifolium alpinum</i>	516221
<i>Poa bulbosa</i>	517032	<i>Trifolium amabile</i>	516222
<i>Poa ligulata</i>	517033	<i>Trifolium amabile</i>	
<i>Prunus americana</i>	514677	var. <i>longifolium</i>	516223
<i>Prunus maritima</i>	515949,518822-	<i>Trifolium ambiguum</i>	516224-
518824		516226,517261	
<i>Raphanus sativus</i>	518855-518858	<i>Trifolium angulatum</i>	516227
<i>Retama monosperma</i>	517034	<i>Trifolium angustifolium</i>	516228,
<i>Rhus glabra</i>	518502-518511	517069-517074	
<i>Rosa rugosa</i>	515950	<i>Trifolium angustifolium</i>	
<i>Salix hookeriana</i>	515977	var. <i>intermedium</i>	516229
<i>Sanguisorba minor</i>	517035-	<i>Trifolium apertum</i>	516230
517038		<i>Trifolium argutum</i>	516231-
<i>Sanguisorba</i> sp.	517039	516233	
<i>Scorpiurus muricatus</i>	517040-	<i>Trifolium arvense</i>	516234-
517045,518448		516236,517075-517076	
<i>Scorpiurus vermiculatus</i>	517046-	<i>Trifolium aureum</i>	516237-516241
517050		<i>Trifolium baccarinii</i>	516242,



517262-517294		<i>Trifolium glanduliferum</i>	
<i>Trifolium barbigerum</i>	516243-	var. <i>nervulosum</i>	516315
516245		<i>Trifolium glomeratum</i>	516316,
<i>Trifolium barbigerum</i>		517105-517107	
var. <i>andrewsii</i>	516246	<i>Trifolium gracilentum</i>	516317-
<i>Trifolium batmanicum</i>	516247	516319	
<i>Trifolium bifidum</i>	516248-	<i>Trifolium gracilentum</i>	
516253		var. <i>palmeri</i>	516320
<i>Trifolium bilineatum</i>	516254,	<i>Trifolium grandiflorum</i>	516321-
517295-517329		516323	
<i>Trifolium billardieri</i>	516255	<i>Trifolium haydenii</i>	516324
<i>Trifolium blancheanum</i>	516256	<i>Trifolium heldreichianum</i>	
<i>Trifolium bocconeii</i>	516257,	516325-516326	
517077		<i>Trifolium hirtum</i>	516327-516329
<i>Trifolium bocconeii</i>		<i>Trifolium hybridum</i>	516330-
var. <i>tenuifolium</i>	516258	516338, 517424-517425	
<i>Trifolium bullatum</i>	516259-	<i>Trifolium hybridum</i> var. <i>elegans</i>	
516261		516339	
<i>Trifolium burchellianum</i>	516262-	<i>Trifolium incarnatum</i>	516340
516266, 517330-517355		<i>Trifolium isthmocarpum</i>	517108-
<i>Trifolium campestre</i>	516267-	517112	
516270, 517078-517081, 518449		<i>Trifolium lanceolatum</i>	516341
<i>Trifolium carolinianum</i>	516271-	<i>Trifolium lappaceum</i>	516342,
516273		517113-517115	
<i>Trifolium caucasicum</i>	516276	<i>Trifolium longipes</i>	516343
<i>Trifolium cernuum</i>	516274-	<i>Trifolium lucanicum</i>	516344
516275		<i>Trifolium macraei</i>	516345
<i>Trifolium cherleri</i>	516277-	<i>Trifolium mattirolianum</i>	516346,
516279, 517082-517086		517426-517447	
<i>Trifolium chilense</i>	516280	<i>Trifolium medium</i>	516347-516356
<i>Trifolium ciliolatum</i>	516281-	<i>Trifolium michelianum</i>	516357
516282		<i>Trifolium michelianum</i>	
<i>Trifolium clusii</i>	516283-516287	var. <i>balansae</i>	516358
<i>Trifolium clypeatum</i>	516288	<i>Trifolium micranthum</i>	516359
<i>Trifolium constantinopolitanum</i>		<i>Trifolium microcephalum</i>	516360-
516289		516365	
<i>Trifolium cryptopodium</i>	516290,	<i>Trifolium microdon</i>	516366-
517356-517385		516367	
<i>Trifolium cyathiferum</i>	516291	<i>Trifolium miegeanum</i>	516368
<i>Trifolium dalmaticum</i>	516292	<i>Trifolium multinerve</i>	516369,
<i>Trifolium decorum</i>	516293,	517448-517451	
517386-517420		<i>Trifolium mutabile</i>	516370
<i>Trifolium depauperatum</i>	516294-	<i>Trifolium nigrescens</i>	516371
516297		<i>Trifolium noricum</i>	516372
<i>Trifolium dichotomum</i>	516298-	<i>Trifolium ochroleucon</i>	516373,
516299		517116-517119	
<i>Trifolium diffusum</i>	516300	<i>Trifolium ornithopodioides</i>	
<i>Trifolium dubium</i>	516301-516303,	516374	
517087		<i>Trifolium palaestinum</i>	516375
<i>Trifolium echinatum</i>		<i>Trifolium pallescens</i>	516376
var. <i>carmeli</i>	516304	<i>Trifolium pannonicum</i>	516377-
<i>Trifolium eriosphaerum</i>	516305	516383	
<i>Trifolium fragiferum</i>	516306-	<i>Trifolium parryi</i>	516384-516385
516308, 517088-517104, 517421-		<i>Trifolium patens</i>	516386
517423		<i>Trifolium patulum</i>	516387
<i>Trifolium fucatum</i>	516309-	<i>Trifolium philistaeum</i>	516388-
516314		516389	

<i>Trifolium physodes</i>	517120	<i>Trifolium tridentatum</i>	516453-
<i>Trifolium pichisermollii</i>		516458	
516390, 517452-517455		<i>Trifolium tumens</i>	516459
<i>Trifolium pinetorum</i>	516391	<i>Trifolium uniflorum</i>	516460-
<i>Trifolium plebeium</i>	516392	516461	
<i>Trifolium polymorphum</i>	516393-	<i>Trifolium usambarense</i>	516462
516395		<i>Trifolium variegatum</i>	516463-
<i>Trifolium polystachyum</i>	516396,	516466	
517456-517465		<i>Trifolium vavilovii</i>	516467-
<i>Trifolium pratense</i>	516397,	516468	
517121-517124, 517466-517478		<i>Trifolium vernum</i>	516469-516470
<i>Trifolium purpureum</i>	516398	<i>Trifolium virginicum</i>	516471-
<i>Trifolium quartinianum</i>	516399,	516472	
517479-517501		<i>Trifolium wormskioldii</i>	516473-
<i>Trifolium reflexum</i>	516400-	516475	
516402		<i>Trigonella anguina</i>	517185
<i>Trifolium repens</i>	516403-516418,	<i>Trigonella foenum-graecum</i>	
517125-517130, 517502-517516,		515953	
518450		<i>Trigonella sp.</i>	517186
<i>Trifolium resupinatum</i>	516419-	<i>Triticum aestivum</i>	515951,
516423, 517131-517145		515970, 516196-516197, 516200-	
<i>Trifolium retusum</i>	516424	516201, 517187, 517194, 518551-	
<i>Trifolium riograndense</i>	516425	518555, 518568-518591, 518593-	
<i>Trifolium rubens</i>	516426-516427	518605, 518613-518628, 518648,	
<i>Trifolium rueppellianum</i>	516428,	518782-518818, 518834-518835,	
517517-517577		518864-519876, 519878, 519880-	
<i>Trifolium scabrum</i>	517146,	520121, 520125-520254, 520258-	
518451		520419, 520489-520596	
<i>Trifolium schimperii</i>	516429,	<i>Triticum durum</i>	517188
517578-517598		<i>Triticum monococcum</i>	518452
<i>Trifolium semipilosum</i>	516430-	UNIDENT-Cucurbitaceae sp.	
516432, 517599-517674		518701	
<i>Trifolium simense</i>	517675-	<i>Ulmus parvifolia</i>	516478
517700		<i>Vicia articulata</i>	518453
<i>Trifolium sp.</i>	517147-517150	<i>Vicia ervilia</i>	515978-515983,
<i>Trifolium spadiceum</i>	516433-	518454-518469	
516434		<i>Vicia faba</i>	517189
<i>Trifolium spumosum</i>	517151	<i>Vicia monantha</i>	517190
<i>Trifolium squamosum</i>	516435	<i>Vicia montbretii</i>	515984
<i>Trifolium stellatum</i>	516436-	<i>Vicia narbonensis</i>	515985-
516439, 517152-517153		515987, 518470-518471	
<i>Trifolium steudneri</i>	517702-	<i>Vicia sp.</i>	517191-517192
517764		<i>Vicia villosa</i>	515988-515989
<i>Trifolium stoloniferum</i>	516440-	<i>Vigna membranacea</i>	517897-
516441		517902	
<i>Trifolium striatum</i>	516442	<i>Vigna mungo</i>	518264-518265
<i>Trifolium strictum</i>	516443	<i>Vigna oblongifolia</i>	517903-
<i>Trifolium subterraneum</i>	516444,	517904	
517154-517179		<i>Vigna radiata</i>	517905-517909,
<i>Trifolium suffocatum</i>	516445	518266-518269	
<i>Trifolium tembense</i>	516446,	<i>Vigna unguiculata</i>	517910-
517765-517896		517912	
<i>Trifolium thalii</i>	516447-516448	X <i>Agrotriticum sp.</i>	518859
<i>Trifolium tomentosum</i>	516449-	X <i>Triticosecale sp.</i>	518647,
516451, 517180-517184		519877, 519879, 520122-520124,	
<i>Trifolium trichocephalum</i>		520255-520257, 520420-520488	
516452		<i>Zea mays</i>	514678-515579, 516002-

516176,517193,517960-517974,  
518270-518277,518472,518660,  
518735-518744,518748-518749,  
518755,518769-518770  
Zornia glochidiata 517913-  
517917  
Zornia setosa 517918-517921

# Common Name Cross Reference

Alfalfa	515954-515958, 516179-516180, 516754-516905, 517221-517254, 518656, 520597	518512	
Alsike clover	516330-516338, 517424-517425	Common wheat	515951, 515970, 516196-516197, 516200-516201, 517187, 517194, 518551-518555, 518568-518591, 518593-518605, 518613-518628, 518648, 518782-518818, 518834-518835, 518864-519876, 519878, 519880-520121, 520125-520254, 520258-520419, 520489-520596
American plum	514677	Corn	514678-515579, 516002-516176, 517193, 517960-517974, 518270-518277, 518472, 518660, 518735-518744, 518748-518749, 518755, 518769-518770
Arabian scurfpea	516508	Cornelian-cherry	516476
Barba de chivo	516514	Cotton	517927-517946, 518655, 518761-518768
Bard vetch	517190	Crambe	514649-514650
Barley	515966-515967, 516198-516199, 516592, 518550, 518556-518566, 518635-518642	Crimson clover	516340
Barrelclover	516923-516950, 517257	Cucumber	518848-518854
Basin wildrye	516191-516192	Durum wheat	517188
Beach plum	515949, 518822-518824	Einkorn	518452
Beardless wildrye	516193-516195	Fairway crested wheatgrass	516481-516482
Berseem clover	516214-516217, 517054-517068	Fenugreek	515953
Big trefoil	517202	Field pea	517922-517926
Birdsfoot trefoil	516609-516612, 517197-517201, 518447	Foxtail millet	517051
Bitter panicgrass	515948, 518820-518821	French honeysuckle	516573-516583, 518445-518446
Bitter vetch	515978-515983, 518454-518469	Garden bean	518171-518242, 518747
Black gram	518264-518265	Garden pea	518262-518263
Black medic	516697-516706, 517207-517213	Garlic	515971-515976
Bluebunch wheatgrass	516184-516190	Hairy vetch	515988-515989
Bottle gourd	518692	Hican	517978-517991
Broadbean	517189	Hop	518760
Buffelgrass	516516-516517	Indiangrass	514673
Bulbous barley	516591	Intermediate wheatgrass	516553-516554
Bulbous bluegrass	517032	Italian ryegrass	516178, 517948
Bulbous canarygrass	517026-517027	Kenya clover	516430-516432, 517599-517674
Buttonclover medic	516722-516727	Kidney vetch	516488-516489
Cabbage	518836-518838	Kura clover	516224-516226, 517261
California burclover	516728-516735, 517214-517220	Lappa clover	516342, 517113-517115
Cantaloupe	518444	Large hop clover	516267-516270, 517078-517081, 518449
Carrot	515990-516001	Leadplant	514675
Casabanana	518693	Lentil	515969, 518261, 518731-518734
Chewings Fescue	518650	Little burclover	516713-516719
Chickpea	516518-516519, 518247-518260	Meadow fescue	516567-516570
Chinese cabbage	518839-518847		
Chinese elm	516478		
Chinese hickory	517977		
Common oat	515922-515947,		

Medic	516916-516922	518754, 518756-518759, 518771-
Mungbean	517905-517909, 518266-	518772, 518825-518833
518269		Squash
Naked oats	518513	518682-518686
Napiergrass	517947	Star clover
Narbonne vetch	515985-515987,	516436-516439,
518470-518471		517152-517153
New Jersey tea	514676	Strawberry clover
Northern white cedar	518497	516306-
Old man saltbush	516505	516308, 517088-517104, 517421-
Orchardgrass	516177, 516528-	517423
516546		Subterranean clover
Pearl millet	517021-517024,	516444,
518646		517154-517179
Pecan	517992-518145	Sudangrass
Perennial ryegrass	516605-	516182
516606, 518662		Suffocated clover
Persian clover	516419-516423,	516445
517131-517145		Sugarbeet
Pigeon pea	518243-518246,	515962-515965, 518156-
520598		518170, 518298-518440, 518643-
Polargrass	518659	518645, 518779-518781
Potato	515919-515921, 518592	Sunflower
Prairie sandreed	518499-518501	517949-517959, 518651-
Proso millet	516181, 517016-	518654, 518773-518778
517019		Sweet potato
Purple amaranth	515959	518473-518480
Quinoa	518441-518442	Tall fescue
Rabbit-foot clover	516234-	514633-514643,
516236, 517075-517076		516557-516566
Radish	518855-518858	Tall oatgrass
Red clover	516397, 517121-	517195-517196
517124, 517466-517478		Tall wheatgrass
Rice	514276-514277, 514651-	516551-516552
514670		Thickspike wheatgrass
Rose clover	516327-516329	518498
Rough clover	517146, 518451	Tifton burclover
Rugosa rose	515950	516737-516753
Safflower	514618-514632	Timothy
Sea orach	516503-516504	517258-517259
Serradella	517002-517003	Tobacco
Shagbark hickory	518149-518150	518745-518746
Shellbark hickory	518146-	514644-514648
518148		Tomato
Single-flowered vetch	518453	Tree alfalfa
Slender wheatgrass	516183	516640
Small burnet	517035-517038	Triticale
Small hop clover	516301-516303,	518647, 519877, 519879,
517087		520122-520124, 520255-520257,
Smilgrass	517007-517015	520420-520488
Smooth sumac	518502-518511	Tufted hairgrass
Snail medic	516907, 517255	518658
Sorghum	514278-514600, 515580-	Tulip popular
515909, 518514-518549, 518657		516477
Soybean	514671-514672, 515960-	Water hickory
515961, 518284-518297, 518663-		517975-517976
518677, 518702-518729, 518750-		Watermelon
		518606-518612
		Western Fescue
		518819
		Wheatgrass
		516555-516556
		White clover
		516403-516418,
		517125-517130, 517502-517516,
		518450
		White lupine
		516622-516630,
		517204
		White wormwood
		516490
		Whitetip clover
		516463-516466
		Wild soybean
		514674, 518278-
		518283
		Winter squash
		518678-518681
		Woolly clover
		516449-516451,
		517180-517184
		Yard-long bean
		517910-517912
		Yebbnut
		516520
		Yellow lupine
		516631-516638
		Zig-zag clover
		516218-516220,
		516347-516356

## 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 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)