



United States  
Department of  
Agriculture  
Agricultural  
Research  
Service

# Plant Inventory No. 212

Plant Materials Introduced 2003  
(Nos. 632417 to 634360)



## Forward

Plant Inventory No. 212. Plant Materials Introduced January 1 to December 31, 2003, Nos. 632417 to 634360.

U.S. Department of Agriculture, Agricultural Research Service.  
This inventory lists plant materials introduced into the U.S. National Plant Germplasm System during calendar year 2003. It is not a listing of plant material for distribution.

For questions about data organization and proper plant identification, contact the Database Management Unit: [dbmu@ars-grin.gov](mailto:dbmu@ars-grin.gov)

This report is reproduced essentially as supplied by the authors. It received minimal publications editing and design. The authors' views are their own and do not necessarily reflect those of the U.S. Department of Agriculture.

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791.

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, DC 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

The following were developed by Dennis Cash, Montana State University, Animal & Range Sciences Dept., 235 Linfield Hall, Bozeman, Montana 59717-3120, United States. Received 01/03/2003.

**PI 632417. *Bromus riparius* Rehmann**

Cultivar. "MacBeth". Pedigree - Synthetic variety with 47 maternal parent plants selected from Fleet. Cool-season, mildly rhizomatous perennial forage grass. Regrowth following clipping is rapid, similar to Fleet, Paddock and Regar. Leaf dimensions, degree of leaf pubescence, rate of phenological development, culm length and seed characteristics are similar to Fleet. Similar plant height to Fleet, and taller than Regar prior to seed maturity. Tolerates intensive fall clipping better than Regar or adapted cvs. of orchardgrass (*Dactylis glomerata*). Forage yields in multi-year trials across Montana of 102, 102 and 104% of Fleet, Paddock, and Regar, respectively. Across dryland sites, 10% higher forage yields than Regar. Excellent seed production potential. Across 3 locations, produced 134% higher seed yields than Regar. Adapted to cool, moist (or irrigated) areas in the intermountain western U.S. Useful as a single species for permanent pastures, or in grain-legume mixtures for grazing or hay production.

The following were developed by J.E. McMurtrey, USDA-ARS, Fields Field Crops Laboratory, PGGI, BARC-West, Beltsville, Maryland 20705, United States; Thomas E. Devine, USDA, ARS, Sustainable Agricultural Systems Laboratory, Building 001, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 01/09/2003.

**PI 632418. *Glycine max* (L.) Merr.**

Cultivar. "Tara"; 97VA 20. PVP 200300172; CV-463. Pedigree - [[(Wilson 6 X Forrest) X (Perry X (Williams X PI 229358))] X Ripley] X Disoy. Early maturity group V with white flowers and tawny pubescence. Seeds yellow with lustrous seed coats and black hila. Seeds weigh 14.4 g per 100. Seed protein percentage activity high. Plant habit indeterminate. Tolerant to purple stain (*Cercospora kikuchii*), southern stem canker (*Diaporthe phaseolorum*), bacterial pustule (*Xanthomonas campestris*), and bacterial blight (*Pseudomonas syringae*). Susceptible to races 3 and 14 of soybean cyst nematode (*Heterodera glycines*). Grows to a height of 1.8 meters under good growing conditions.

The following were developed by B.B. Singh, International Institute of Tropical Agriculture, Grain Legume Improvement Program, Ibadan, Oyo, Nigeria; H.O.A. Elawad, Elobeid Research Station, P.O. Box 429, Elobeid, Sudan. Received 01/27/2003.

**PI 632419. *Vigna unguiculata* (L.) Walp.**

Cultivar. "Dahab Elgoz"; IT84S-2163. CV-208. Pedigree - IT81D-1138 x Kamboinse local (landrace from Burkina Faso). Semi-erect growth habit, with upright peduncles seed pods held over the canopy. Medium size (16 g 100 seed-1) white-cream color seeds with rough seed testa and dark brown seed eye. Combined resistance to several major diseases including cowpea aphid borne mosaic virus, brown blotch, (*Collectotricum caprici*), bacterial blight (*Xanthomonas vignicola*) as well as web blight

(*Rhizoctonia solani*).

The following were developed by R.L. Cooper, USDA-ARS, Ohio State University, 1680 Madison, Wooster, Ohio 44691-4096, United States; Andrew James, CSIRO, Cunningham Laboratory, 306 Carmody Road, St Lucia, Queensland 4067, Australia . Received 12/26/2002.

**PI 632420. *Glycine max* (L.) Merr.**

Breeding. X88. Pedigree - Sprite 87 (3) x ATF8 (dt1,el,1j). Maturity Group late IV to V true semidwarf variety, carrying the long juvenile gene (dt1,el,1j), adapting to lower latitudes. Produces irrigated yields in excess of 7000 kg/ha in SE Queensland. Shows potential for direct release as semidwarf variety for the mid-South U.S. and as valuable germplasm for the development of a semidwarf soybean breeding program in the southern U.S.

**PI 632421. *Glycine max* (L.) Merr.**

Breeding. X34. Pedigree - (Hobbit 87 x ATF8) x Charleston (dt1,el,1j). Maturity Group late IV to V true semidwarf variety, carrying the long juvenile gene (dt1,el,1j), adapting to lower latitudes. Produces irrigated yields in excess of 7000 kh/ha in SE Queensland. Shows potential for direct release as semidwarf variety for the mid-Southern U.S. and as valuable germplasm for the development of a semidwarf soybean breeding program in the southern U.S.

The following were developed by R.L. Cooper, USDA-ARS, Ohio State University, 1680 Madison, Wooster, Ohio 44691-4096, United States; T. Mendiola, USDA, ARS, Ohio Agric. Res. and Development Ctr. (OARDC), Dept. of Hort. and Crop Sci., Wooster, Ohio 44691, United States. Received 12/26/2002.

**PI 632422. *Glycine max* (L.) Merr.**

Breeding. HC94-1946. GP-287. Pedigree - Charleston x HC74-634BC. Maturity Group III, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

**PI 632423. *Glycine max* (L.) Merr.**

Breeding. HC95-634. GP-288. Pedigree - HC85-603 x Sprite-Rps1b. Maturity Group III, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

**PI 632424. *Glycine max* (L.) Merr.**

Breeding. HC94-35PR. GP-289. Pedigree - Charleston (5) x Sprite-87. Maturity Group III, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

**PI 632425. *Glycine max* (L.) Merr.**

Breeding. HC98-303. GP-290. Pedigree - HC89-1640 x Charleston BC.

Maturity Group III, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

**PI 632426. *Glycine max* (L.) Merr.**

Breeding. HC96-45PR. GP-291. Pedigree - HC85-6723 (4) x HC78-676BC. Maturity Group III, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

**PI 632427. *Glycine max* (L.) Merr.**

Breeding. HC97-4358. GP-292. Pedigree - Charleston BC x HC89-868. Maturity Group III, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

**PI 632428. *Glycine max* (L.) Merr.**

Breeding. HC94-944. GP-293. Pedigree - HC85-606 x HC78-676BC. Maturity Group IV, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

**PI 632429. *Glycine max* (L.) Merr.**

Breeding. HC95-933. GP-294. Pedigree - Sprite 87 x Conrad. Maturity Group IV, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

**PI 632430. *Glycine max* (L.) Merr.**

Breeding. HC95-261PR. GP-295. Pedigree - HC85-5844 (4) x HC78-676BC. Maturity Group IV, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

The following were developed by R.L. Cooper, USDA-ARS, Ohio State University, 1680 Madison, Wooster, Ohio 44691-4096, United States; R. W. Cooper, San Diego State College, San Diego, California, United States; T. Mendiola, USDA, ARS, Ohio Agric. Res. and Development Ctr. (OARDC), Dept. of Hort. and Crop Sci., Wooster, Ohio 44691, United States. Received 12/26/2002.

**PI 632431. *Glycine max* (L.) Merr.**

Breeding. HC94-168. GP-296. Pedigree - Charleston x Pella 86. Maturity Group IV, elite semidwarf breeding line with a record of high yield potential and usefulness as parent in the semidwarf breeding program, USDA-ARS, OARDC, Wooster, OH. Released for use by public and private soybean breeders interested in initiating a semidwarf breeding program.

The following were developed by Jim D. Kelly, Michigan State University, Department of Crop & Soil Science, 370 Plant & Soil Sci. Bldg. MSU, East Lansing, Michigan 48824-1325, United States; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States; Shree P. Singh, University of Idaho, Kimberly Research & Extension Ctr., 3793 North 3600 East, Kimberly, Idaho 83341-5076, United States. Received 01/13/2003.

**PI 632432. *Phaseolus vulgaris* L.**

Breeding. USPT-ANT-1. GP-234. Pedigree - USPT-CBB-1/4/Buster/OT9743-5861 (F1)/3/Maverick//Othello/SEL 1308. Type III indeterminate growth habit with short vine extension. Seed weight 39 g per 100 seeds. Possesses the Co-4(2) gene for resistance to anthracnose (*Colletotrichum lindemuthium*), the I gene for resistance to BCMV, and the Ur-3 gene for resistance to rust (*Appendiculatus phaseoli*).

The following were developed by J.B. Rasmussen, North Dakota State University, Dept. of Plant Pathology, Fargo, North Dakota 58105, United States; James D. Miller, USDA-ARS, Dept. of Plant Pathology, North Dakota State University, Fargo, North Dakota, United States; J.A. Anderson, University of Minnesota, Department of Agronomy & Plant Genetics, 411 Borlaug Hall, St. Paul, Minnesota 55108, United States; G.W. Johnson, North Dakota State University, Dept. of Plant Sciences, Fargo, North Dakota 58105, United States; Michael D. Peel, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; T.C. Olson, North Dakota State University, Dept. of Cereal Science, Fargo, North Dakota 58105, United States. Received 01/15/2003.

**PI 632433. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "JERRY"; ND9257. CV-940. Pedigree - Roughrider//Winoka/NB66425/3/Arapahoe. Released 2001. Hard red winter wheat. Mid-maturity, similar to Roughrider. Anthesis occurs two days after heading. Average plant height 94 cm compared to 99 cm for Roughrider, and 104 cm for Seward. Juvenile plant growth erect, plant color at boot dark green. Mid-long, mid-wide spike tapering in shape, with long awns mid-dense and inclined at maturity. Awns and glumes white at maturity. Kernel mid-long, ovate in shape with a narrow mid-deep crease and rounded cheeks. Brush mid-size and medium in length. Tall types occur at less than 1%. Head height in individual plants can vary by as much as 10 cm. Higher yielding with stronger straw than Roughrider, Arapahoe, and Ransom in North Dakota. Resistance to stem rust (*Puccinia graminis*) races Pgt-TPMK and RTQQ after inoculation of greenhouse-grown seedlings. However, field grown plants have been rated as moderately resistant to mod. susceptible to prevalent races of stem rust. Mod. resistant to mod. susceptible prevalent races of leaf rust and is.

The following were developed by Jimmie H. Hatchett, USDA-ARS, Dept of Entomology, Waters Hall, Manhattan, Kansas 66506-4004, United States; Robert A. Graybosch, USDA-ARS, University of Nebraska, Dept. of Agronomy, 344 Keim Hall, Lincoln, Nebraska 68583, United States; P. Stephen Baenziger, University of Nebraska, Department of Agronomy, 330 Keim Hall, Lincoln, Nebraska 68583-0915, United States; David D. Baltensperger, University of

Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States; Don V. McVey, USDA, ARS, University of Minnesota, Cereal Rust Laboratory, St. Paul, Minnesota 55105, United States; John E. Watkins, University of Nebraska, Dept. of Plant Pathology, Lincoln, Nebraska 68583, United States; J. Krall, University of Wyoming, Research & Extension Center, R.1, Box 374, Torrington, Wyoming 88420, United States; Lenis A. Nelson, University of Nebraska, Department of Agronomy, 342 Keim Hall - E. Campus, Lincoln, Nebraska 68583, United States; Ming-Shun Chen, USDA-ARS-GMPRC-PSERU, Wheat Insect Genetics Lab, 4008 Throckmorton Hall, Manhattan, Kansas 66506, United States; B. Beecher, University of Nebraska, Dept. of Agronomy and Horticulture, Lincoln, Nebraska 68583, United States. Received 01/21/2003.

**PI 632434. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "GOODSTREAK"; NE97465; NSGC 8870. PVP 200300281; CV-945. Pedigree - SD3055/KS88H164//NE89646 ; SD3055 = ND604/SD2971 ; ND604 = Len//Butte/ND526 ; SD2971 = Agent/3/ND441//Waldron/Bluebird/4/Butte/5/Len ; KS88H164 = Dular/Eagle//2\*Cheney/Larned/3/TAM107. Released 2002. Hard red winter wheat. Released primarily for its superior adaptation to rainfed wheat production systems in western Nebraska where conventional height wheat cultivars with long coleoptiles are needed for good emergence and harvest in low moisture conditions. Medium in maturity, about 1 day earlier than Buckskin and 1.5 days later than Pronghorn. Moderately resistant to stem rust (most likely Sr6 and an unknown gene) and Hessian fly. Susceptible to leaf rust, wheat soilborne mosaic virus, wheat streak mosaic virus, and BYDV.

The following were developed by Jimmie H. Hatchett, USDA-ARS, Dept of Entomology, Waters Hall, Manhattan, Kansas 66506-4004, United States; Robert A. Graybosch, USDA-ARS, University of Nebraska, Dept. of Agronomy, 344 Keim Hall, Lincoln, Nebraska 68583, United States; P. Stephen Baenziger, University of Nebraska, Department of Agronomy, 330 Keim Hall, Lincoln, Nebraska 68583-0915, United States; David D. Baltensperger, University of Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States; Don V. McVey, USDA, ARS, University of Minnesota, Cereal Rust Laboratory, St. Paul, Minnesota 55105, United States; John E. Watkins, University of Nebraska, Dept. of Plant Pathology, Lincoln, Nebraska 68583, United States; Lenis A. Nelson, University of Nebraska, Department of Agronomy, 342 Keim Hall - E. Campus, Lincoln, Nebraska 68583, United States; Ming-Shun Chen, USDA-ARS-GMPRC-PSERU, Wheat Insect Genetics Lab, 4008 Throckmorton Hall, Manhattan, Kansas 66506, United States; B. Beecher, University of Nebraska, Dept. of Agronomy and Horticulture, Lincoln, Nebraska 68583, United States. Received 01/21/2003.

**PI 632435. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "HARRY"; NE97689; NSGC 8871. CV-946. Pedigree - NE90614/NE87612 ; NE90614 = Brule/4/Parker\*4/Agent//Beloterkovskaia 198/Lancer/3/Newton/Brule ; NE87612 = Newton//Warrior\*5/Agent/3/Agate sib. Released 2002. Hard red winter wheat. Released primarily for its superior adaptation to rainfed wheat production systems in western Nebraska. Late in maturity, about 2.2 days later than Arapahoe and 3.6 days later than Wesley. Semi-dwarf wheat and has a short coleoptile. Moderately resistant to stem rust (most likely containing Sr6, Sr17, Sr24), leaf rust (mostly likely Lr24 and others), and Hessian fly. Susceptible to wheat soilborne mosaic virus and wheat streak mosaic

virus, but may contain a low level of tolerance to BYDV.

The following were developed by Pure Line Seeds, Inc., P.O. Box 8866, Moscow, Idaho 83843, United States. Received 01/23/2003.

**PI 632436 PVPO. *Pisum sativum* L.**  
Cultivar. "PARA". PVP 200300051.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 01/23/2003.

**PI 632437 PVPO. *Brassica napus* L.**  
Cultivar. "NS4303". PVP 200300052.

**PI 632438 PVPO. *Brassica napus* L.**  
Cultivar. "NS4304". PVP 200300053.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 01/23/2003.

**PI 632439 PVPO. *Lactuca sativa* L.**  
Cultivar. "CYCLONE". PVP 200300054.

The following were developed by Pybas Vegetable Seed Company, P.O. Box 868, Santa Maria, California 93456, United States. Received 01/23/2003.

**PI 632440 PVPO. *Lactuca sativa* L.**  
Cultivar. "VANDENBERG". PVP 200300056.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 01/23/2003.

**PI 632441 PVPO. *Lolium perenne* L.**  
Cultivar. "CHAPARRAL II". PVP 200300057.

The following were developed by Pennington Seeds, Inc., United States. Received 01/23/2003.

**PI 632442 PVPO. *Festuca longifolia* Thuill.**  
Cultivar. "E2H". PVP 200300059.

**PI 632443 PVPO. *Festuca rubra* L. subsp. *rubra***  
Cultivar. "PSC". PVP 200300060. Strong, creeping, red fescue.

**PI 632444 PVPO. *Festuca rubra* subsp. *fallax* (Thuill.) Nyman**  
Cultivar. "C73". PVP 200300061.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 01/23/2003.

**PI 632445 PVPO. *Lolium perenne* L.**  
Cultivar. "CATALINA II". PVP 200300062.

The following were developed by Syngenta Seeds, Inc., United States. Received 01/23/2003.

**PI 632446 PVPO. *Phaseolus vulgaris* L.**  
Cultivar. "SB 4251". PVP 200300063.

The following were developed by Arkansas Agricultural Experiment Station, University of Arkansas, Arkansas, United States. Received 01/23/2003.

**PI 632447 PVPO. *Oryza sativa* L.**  
Cultivar. "FRANCIS". PVP 200300066.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 01/23/2003.

**PI 632448 PVPO. *Phaseolus vulgaris* L.**  
Cultivar. "THOROUGHbred"; XP 08100518. PVP 200300069.

The following were developed by Pennington Seeds, Inc., United States. Received 01/23/2003.

**PI 632449 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "FORTE". PVP 200300070.

**PI 632450 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "SIGNIA". PVP 200300071.

The following were developed by Advanta USA, Inc., United States. Received 01/23/2003.

**PI 632451 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "GREYSTONE"; ATF705. PVP 200300072.

**PI 632452 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "TULSA II"; ATF706. PVP 200300073.

**PI 632453 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "TUXEDO"; ATF702. PVP 200300074.

The following were developed by Turf Merchants, Inc., United States. Received 01/23/2003.

**PI 632454 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "FINESSE II". PVP 200300075.

**PI 632455 PVPO. *Festuca rubra* L. subsp. *rubra***  
Cultivar. "CELESTIAL". PVP 200300076. Strong, creeping, red fescue.

**PI 632456 PVPO. *Poa pratensis* L.**

Cultivar. "BROOKLAWN". PVP 200300077.

The following were developed by Paragon Seed, Inc., United States. Received 01/23/2003.

**PI 632457 PVPO. *Lactuca sativa* L.**

Cultivar. "TEHAMA". PVP 200300078.

The following were developed by Pybas Vegetable Seed Company, P.O. Box 868, Santa Maria, California 93456, United States. Received 01/23/2003.

**PI 632458 PVPO. *Lactuca sativa* L.**

Cultivar. "BIG COUNTRY". PVP 200300079.

The following were collected by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/02/1993.

**PI 632459. *Elymus nevskii* Tzvelev**

Wild. X93170; W6 13076. Collected 08/18/1993 in Xinjiang, China. Latitude 44 deg. 7' N. Longitude 87 deg. 58' E. Elevation 1680 m. Uncut, non-irrigated mountain pasture. Bottom of slope at Y in road 4km from main road to Tien Shi Lake (Heavenly Lake) on left side of road going east, Xinjiang.

**PI 632460. *Bromus inermis* Leyss. subsp. *inermis***

Wild. X93026; W6 12944. Collected 08/07/1993 in Xinjiang, China. Latitude 43 deg. 50' N. Longitude 86 deg. 16' E. Elevation 1665 m. In town of Lao Ba Wan Zi, 100km from Hutubi, 43km southwest of Dafeng, Xinjiang. Natural pasture at base of Tien Shan Mountains, used for hay cutting, close to the border of Pinus Tienshanica.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

**PI 632461. *Dactylis glomerata* L.**

Wild. M191.CPG94; W6 15920. Collected 07/27/1994 in Morocco. Latitude 30 deg. 54' 11'' N. Longitude 8 deg. 18' 38'' W. Elevation 1750 m. Near Idni, 5 k south of Idni on S501, Taroudannt-Marrekech road. Grazed. Slope 11-40%, aspect NE. Open. Soil sandy loam on calcareous schist type rock, pH 9.5. Rainfall 300 mm. Seasonally dry, cliff. Veg. closed, seasonal tall grass. Surrounding veg. degraded evergreen open forest with closed lower layers. Population abundance occasional, distribution patchy. Growth habit erect.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

**PI 632462. *Dactylis glomerata* L.**

Wild. M169.CPG94; W6 15898. Collected 07/25/1994 in Morocco. Latitude 31 deg. 16' 38'' N. Longitude 7 deg. 48' 33'' W. Elevation 1340 m. Near Arhbalow, 9 k west of Arhbalow on road 6034A, Marrakech-Oukaimeden. Grazed. Slope 0-5%, aspect NE. Open. Soil sandy loam on sandstone, shales, limestone, pH 9.0. Rainfall 800 mm. Moist, stream terrace. Vegetation closed, seasonal tall grass. Surrounding veg. degraded evergreen open forest with closed lower layers. Population abundance frequent, distribution patchy. Growth habit erect.

**PI 632463. *Dactylis glomerata* L.**

Wild. M166.CPG94; W6 15895. Collected 07/25/1994 in Morocco. Latitude 31 deg. 20' 37'' N. Longitude 7 deg. 45' 22'' W. Elevation 905 m. Near Arhbalow, 4.5 k northwest of Arhbalow on road S513; Marrakech-Setti-Fatma. Grazed. Slope 11-40%, aspect N. 1/4 shade. Soil sand in alluvium on sandstone, some schist, pH 9.0. Rainfall 500 mm. Seasonally dry, lower-upper slope. Veg. closed, evergreen open forest with closed lower layers. Surrounding veg. evergreen tall grass. Population abundance occasional, distribution patchy. Growth habit erect.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632464. *Pseudoroegneria spicata* (Pursh) A. Love**

Wild. Acc:1158; B104; W6 20915. Collected in Colorado, United States. Hamilton, Moffat County.

The following were collected by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Lufter Xhuveli, Agricultural University of Tirana, Dept. of Agronomy, Rr."Myslym Shyri", Tirana, Albania. Received 09/1996.

**PI 632465. *Festuca* sp.**

Wild. Al 138; W6 18671. Collected 09/1996 in Albania. Latitude 41 deg. 55' 58'' N. Longitude 19 deg. 28' 19'' E. Elevation 30 m. Along road S of village of Bushat in hills bordering the Malit te Torrovices ("Marshes of Torrovica"). Among rose shrub. Bordering flat plains or drained marshes. Height 80-100cm. Panicles long. Frequent.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632466. *Nassella viridula* (Trin.) Barkworth**

Wild. T-878; W6 20884. Collected in Colorado, United States. Latitude 37 deg. 17' N. Longitude 103 deg. 1' W. 15 miles west of town of Pritchett on Highway 160 in Baca County.

The following were collected by Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; K. Guney, Ankara University, Ankara, Ankara, Turkey. Received 02/10/1997.

**PI 632467. *Poa pratensis* L.**

Wild. 4213b; W6 19234. Collected 08/01/1993 in Bayburt, Turkey. Latitude 40 deg. 25' N. Longitude 40 deg. 4' E. Elevation 1555 m. 24 km northwest of Bayburt on Highway E97/050 to Trabzon, just east of Aksar. Loamy sands of floodplain bench of small river under *Populus*, in enclosure of a small park. Among steppe covered hills south of the Pontic Mountains. Common.

The following were collected by Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Nicolay Portinier, Kamorov Institute of Botany, St. Petersburg, Leningrad, Russian Federation; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

**PI 632468. *Dactylis glomerata* L.**

Wild. VIR D33; W6 17805. Collected 07/20/1995 in Russian Federation. Latitude 44 deg. 24' 13'' N. Longitude 40 deg. 33' 3'' E. Elevation 650 m. pH 5.8-5.9.

**PI 632469. *Phleum montanum* K. Koch**

Wild. VIR D107; W6 17771. Collected 08/12/1995 in Russian Federation. Latitude 44 deg. 28' 31'' N. Longitude 39 deg. 25' 15'' E. Elevation 200 m. pH 3.6-3.8.

The following were collected by Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; K. Guney, Ankara University, Ankara, Ankara, Turkey. Received 02/10/1997.

**PI 632470. *Puccinellia* sp.**

Wild. 4222; W6 19242. Collected 08/03/1993 in Amasya, Turkey. Latitude 40 deg. 50' N. Longitude 35 deg. 29' E. Elevation 488 m. Highway 795 from Samsun to Ankara, 10 km south of Merzifon. Broad shallow interior agricultural valley, surrounded by steppe and *Quercus*, *Juniperus*, and *Pinus nigra* forests. Alkaline swale bordering fields, in heavy wet, clay loam, with *Juncus* and *Phragmites*.

The following were collected by Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Melvin Rumbaugh, R.R. 3, Box 125, Humboldt, Nebraska 68376, United States; Nicolay Portinier, Kamorov Institute of Botany, St.

Petersburg, Leningrad, Russian Federation; Jay Hart, 20 Bush Lane, Ithaca, New York 14850, United States; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

**PI 632471. *Elytrigia repens* subsp. *elongatiformis*** (Drobow) Tzvelev  
Wild. 0257; VIR 100; US 257; W6 17877. Collected 08/18/1995 in Russian Federation. Latitude 45 deg. 16' 43'' N. Longitude 36 deg. 57' 57'' E. Elevation 10 m. Southwest of Temrjuk, village Senah/Fanagaria-Greek ruins. Near campsite. Past settlement, now grazed. Slope 0-5%, aspect NE. Light open. Soil sand, pH 7.0-7.6. Seasonally dry, beach, mud volcanic slopes. Vegetation open, evergreen dwarf shrub steppe savanna. Surrounding vegetation seasonal tall grass. Dominant tree species Hornbeam-Oak, Russian Olive. Dominant shrub species *Artemisia austriaca*. Dominant herb/grass species *Elytrigia elongatum*, *Agropyron cristatum*, Bermuda grass, puncture vine, many forbs, wild mustard. Population distribution patchy, abundance occasional. Growth habit erect. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

**PI 632472. *Lolium perenne* L.**  
Wild. S073.CPG94; W6 16178. Collected 07/07/1994 in Sardinia, Italy. Latitude 40 deg. 2' 17'' N. Longitude 9 deg. 15' 27'' E. Elevation 1030 m. 10 k south of Fonni road SP7, Desulo-Fonni. Grazed. Slope 0-5%, aspect E. Area open. Soil loam, rock schist/shale, pH 6.0. Rainfall 1180 mm. Seasonally dry, lower slope. Vegetation closed, seasonal short grass. Surrounding veg. evergreen open forest with closed lower layers. Population abundance occasional, distribution patchy. Growth habit semi-erect.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Leonardo Sulas, Sardinia, Italy. Received 08/19/1994.

**PI 632473. *Lolium perenne* L.**  
Wild. S051.CPG94; W6 16156. Collected 07/06/1994 in Sardinia, Italy. Latitude 40 deg. 21' 18'' N. Longitude 8 deg. 47' 45'' E. Elevation 650 m. Padru Mannu, 45 k south of Sassari, 2 k east of Hw.131, 1/2 k south of road to Bolotana. Grazed. Slope 0-5%, aspect E. Area open. Soil loam, pH 6.0. Rainfall 960 mm. Seasonally dry, stream terrace, oak-grassland. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen open forest with closed lower layers. Population abundance frequent, distribution patchy. Growth habit semi-erect.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

**PI 632474. *Lolium perenne* L.**

Wild. S019.CPG94; W6 16124. Collected 07/04/1994 in Sardinia, Italy. Latitude 40 deg. 34' 7'' N. Longitude 9 deg. 2' 54'' E. Elevation 545 m. Near Ozieri, 6 k east of Ozieri on road SS128bis, Ozieri-Battada. Grazed. Slope 0-5%, aspect N. Area open. Soil clay, pH 7.0. Rainfall 670 mm. Moist, basin, swale zone. Vegetation closed, evergreen broad-leaved herb veg. Surrounding veg. dryland forage agri. Population abundance frequent, distribution patchy. Growth habit semi-erect.

The following were collected by Kay H. Asay, USDA, ARS, Forage & Range Research Unit, Utah State University, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/24/1993.

**PI 632475. *Agropyron fragile* (Roth) P. Candargy**

Wild. JA-69; VIR U-0134822; W6 13344. Collected in Kazakhstan. Latitude 46 deg. 28' N. Longitude 59 deg. 50' E. Elevation 75 m. Sandy soil adjacent to Aral Sea flats, 153km south of Chelkar, about 20km north of Aral Sea. Annual precipitation 130mm. Area dominated by species of *Salsola*, *Artemisia*, *Aristida*, and *Tamarix*.

**PI 632476. *Agropyron fragile* (Roth) P. Candargy**

Wild. JA-83; VIR U-0134763; W6 13358. Collected in Kazakhstan. Latitude 47 deg. 57' N. Longitude 60 deg. 18' E. Elevation 230 m. Dry water way dominated by *Artemisia terrae-albae*, 53km east northeast of Chelkar. Annual precipitation 150mm. Vegetation - *Artemisia*, *Agropyron* spp., and *Stipa* spp.

The following were donated by S.M. Lambert, USDA-SCS, Plant Materials Center, W.316 Boone Avenue, Suite 450, Spokane, Washington 99201-2348, United States; Kasym Obuovich Asanov, Kazakh Research Institute of Feed and Pasture, street Dzandosov 51, Almaty, Alma-Ata 480035, Kazakhstan. Received 08/05/1995.

**PI 632477. *Dactylis glomerata* L.**

Cultivated. W6 19871.

The following were collected by Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; K. Guney, Ankara University, Ankara, Ankara, Turkey. Received 02/10/1997.

**PI 632478. *Alopecurus myosuroides* Huds.**

Wild. 4225; W6 19243. Collected 08/03/1993 in Corum, Turkey. Latitude 40 deg. 25' N. Longitude 34 deg. 48' E. Elevation 732 m. Highway 795 from Samsun to Ankara, 17 km southwest of Corum, just east of Hamdikoy. In

the bottom of large sunken field used to grow *Beta vulgaris*, between fields on normal terrain, in heavy somewhat alkaline clay loam with *Phragmites*, *Carduus*. Broad shallow interior agricultural valley, surrounded by steppe and *Quercus*, *Juniperus*, and *Pinus nigra* forests.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632479. *Pseudoroegneria spicata*** (Pursh) A. Love  
Wild. Acc:171; P7845; W6 20908. Collected in Idaho, United States.  
Winchester.

**PI 632480. *Pseudoroegneria spicata*** (Pursh) A. Love  
Wild. Acc:159; 9040564; W6 20907. Collected in Montana, United States.  
Powell County.

The following were donated by Robert Aline, RAGT, Centre de recherche, Le Bourg, Druelle, France. Received 11/19/1990.

**PI 632481. *Lolium multiflorum*** Lam.  
Cultivar. "Agryl"; W6 6258. Developed in France. Is a tetraploid.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632482. *Poa attenuata subsp. botryoides*** (Trin. ex Griseb.) Tzvelev  
Wild. 98HT-50; W6 21174. Collected 09/1998 in Mongolia. Latitude 48 deg. 8' 34'' N. Longitude 109 deg. 22' 5'' E. Elevation 1402 m. Omnodelger Sum, Henti Aimag. Slope about 1 km to west side of large lake and marshy stream bottom. Moose monument is just north of site. Soils are deep gravelly loam. Both forest and open grassland areas. Associated vegetation: *Larix* forest dominates at higher elevation, grass and forbs dominate between forest and lake-riparian zone.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 03/06/1997.

**PI 632483. *Agrostis clavata*** Trin.  
Wild. 96N-288; W6 19772. Collected 08/1996 in Mongolia. Latitude 50 deg. 29' 59'' N. Longitude 93 deg. 35' 48'' E. Elevation 924 m. Uvs Aimag, mixed sand hill/marsh 1.5 km north of Tooromi. Soils is sand. Used extensively for wintering animals. DOMINANT VEG: *Achnatherum splendens*, *Allium mongolicum*, *Thermopsis* spp., *Sophora aralsca*, *Astragalus adsurgens*, *Elymus strigosa*, *Cleistogenes squarrosa* ECOLOGICAL ZONE: Steppe.

**PI 632484. *Bromus ircutensis* Kom.**

Wild. 96N-263; W6 19751. Collected 08/1996 in Mongolia. Latitude 49 deg. 25' 50'' N. Longitude 94 deg. 29' 34'' E. Elevation 2172 m. Uvs Aimag, located 26 km south on Beruuturuun and 18 km west of Mondaahoo. Site is a woodland opening with 10% slope and a south aspect with some logging and considerable scattered wood scraps about. DOMINANT VEG: Collected species plus *Geranium pratense*, *Carex pediformis*, *Thalictrum simplex*, *Delphinium grandifolium*, *Dianthus versicolor* ECOLOGICAL ZONE: Forest steppe.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632485. *Festuca lenensis* Drobow**

Wild. 98HV-78; W6 21459. Collected 09/1998 in Mongolia. Latitude 50 deg. 7' 31'' N. Longitude 107 deg. 1' 18'' E. Elevation 671 m. Altenbulag Sum, Selenge Aimag, 10 km west of Ikh Dugerre Border Station. Forb-grass type, sandy-soil, sandy blowout areas at base of pine hill and above sedge marsh. Associated vegetation: *Agropyron michnoi*, *Festuca lenensis*, *Leymus chinensis*, *Papaver nudicaule*, *Pinus sylvestris*, *Artemisia vulgaris*, *Potentilla viscosa*, *Serratula centenroides*.

**PI 632486. *Agropyron michnoi* Roshev.**

Wild. 98HV-77; W6 21458. Collected 09/1998 in Mongolia. Latitude 50 deg. 7' 31'' N. Longitude 107 deg. 1' 18'' E. Elevation 671 m. Altenbulag Sum, Selenge Aimag, 10 km west of Ikh Dugerre Border Station. Forb-grass type, sandy-soil, sandy blowout areas at base of pine hill and above sedge marsh. Associated vegetation: *Agropyron michnoi*, *Festuca lenensis*, *Leymus chinensis*, *Papaver nudicaule*, *Pinus sylvestris*, *Artemisia vulgaris*, *Potentilla viscosa*, *Serratula centenroides*.

**PI 632487. *Agropyron michnoi* Roshev.**

Wild. 98HT-223; W6 21303. Collected 09/1998 in Mongolia. Latitude 48 deg. 35' 10'' N. Longitude 110 deg. 41' 41'' E. Elevation 1036 m. Binder Sum, Henti Aimag. Varied terrain on E bank of Onon River. Soils varied with microsite, but were generally fine sand along the river and sandy throughout the area, except where deeper soils had developed under tree overstory. Associated vegetation: *Salix* dominated diverse vegetation close to the river. On uplands away from the river and on southerly aspects, vegetation was grass steppe (*Poa*, *Stipa*, and *Leymus*). On northerly aspects, *Larix* forest steppe with some areas having more shr.

**PI 632488. *Poa pratensis* L.**

Wild. 98HT-57; W6 21178. Collected 09/1998 in Mongolia. Latitude 48 deg. 9' 35'' N. Longitude 109 deg. 25' 14'' E. Elevation 1524 m. Omnodeger Sum, Henti Aimag. Moderate slope with south aspect. Scattered *Larix* trees occur on the higher elevations of the grassland. Soil is very gravelly and is formed from eroded granitic rock. Fire occurred at site about two years ago. Associated vegetation: Open grassland vegetation dominated by *Stipa*, *Poa*, and forbs. Forest vegetation is dominated by

Larix and Populus. Trisetum, Astragalus, and Hedysarum are common in understory.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 05/1995.

**PI 632489. Festuca sibirica** Hack. ex Boiss.

Wild. W94072; W6 18221. Collected 09/1994 in Mongolia. Latitude 48 deg. 56' N. Longitude 102 deg. 49' 14'' E. Elevation 1579 m. About 70 km NW of Bulgan. East edge of wide valley. Near tree line on east. Mountain steppe. West slope 5%.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632490. Agrostis mongolica** Roshev.

Wild. 98HV-94; W6 21474. Collected 09/1998 in Mongolia. Latitude 50 deg. 18' 32'' N. Longitude 105 deg. 1' 25'' E. Elevation 732 m. Tushig Sum, Selenge Aimag, 1 km west of Tushig. Wet meadow, dark brown meadow soil, Agrostis mongolica-Forb type, along small stream draining into Dzelter River. Associated vegetation: Agrostis monogolica, Geum aleppicum, Mentha arvensis, Sanguisorba officinalis, Medicago lupulina.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 03/06/1997.

**PI 632491. Elymus confusus** (Roshev.) Tzvelev

Wild. 96S-179; W6 19676. Collected 09/1996 in Mongolia. Latitude 49 deg. 23' 7'' N. Longitude 102 deg. 47' 43'' E. Elevation 1090 m. Bulgan Aimag, Kutag-Ondor Sum, located 6 km east of sum center. 5% north slope. Ecotone between Larch forest and steppe grassland. Forb species dominate over grass species, and the site productivity is high. DOMINANT VEG: Larix\ Potentilla tanacetifolia + Sanguisorba officinalis\ Elymus dahuricus, Allium spp., Thalictrum simplex, Agropyron cristatum, Stipa sibirica.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632492. *Elymus pendulinus* subsp. *brachypodioides*** (Nevski) Tzvelev  
Wild. 98HT-102; W6 21209. Collected 09/1998 in Mongolia. Latitude 48  
deg. 23' 51'' N. Longitude 110 deg. 12' 4'' E. Elevation 1036 m.  
Ulaanchulun, Batchirrit Sum, Henti Aimag. Within and adjacent to an  
ancient rock-walled fortress enclosing about 40 hectares of hill slope  
and upper edge of meadow. Two small streams drain the enclosed area.  
Gravelly, eroded granitic soils. Recent fire through area. Associated  
vegetation: Overstory species depending on aspect and relief include  
*Pinus*, *Larix*, and *Populus*. Exposed soils are dominated by *Stipa* and  
*Astragalus*. The riparian zone along streams has species typical of  
wetter microsites including *Bromus* and riparians.

The following were collected by Peter Cunningham, Dept. of Agriculture &  
Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria  
3300, Australia; Walter Graves, University of California Cooperative Ext.  
Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219,  
United States; Abdelmajid Mezni, Tunisia. Received 08/19/1994.

**PI 632493. *Festuca arundinacea*** Schreb.

Wild. T115.CPG94; W6 16089. Collected 06/30/1994 in Tunisia. Latitude 36  
deg. 52' 32'' N. Longitude 8 deg. 43' 53'' E. Elevation 155 m. Near Ain  
Draham, 16 k north of Ain Draham to Tabarka on P17 Hw. Grazed. Slope  
11-40%, aspect E. 1/4 shade. Soil clay, heavy cracking vertisol,  
hydromorphic, pH 9.0. Rainfall 1200+ mm. Moist, ravine. Vegetation  
closed, seasonal tall grass. Surrounding veg. evergreen open forest with  
closed lower layers. Population abundance frequent, distribution  
patchy. Growth habit erect.

**PI 632494. *Festuca arundinacea*** Schreb.

Wild. T080.CPG94; W6 16054. Collected 06/27/1994 in Tunisia. Latitude 36  
deg. 53' 33'' N. Longitude 9 deg. 26' 34'' E. Elevation 147 m. Near Sidi  
Nsir, 37 k northeast of Beja on P11 Hw. Grazed. Slope 0-5%, aspect W.  
Open. Soil clay, pH 8.5-9.0. Rainfall 500 mm. Moist, stream terrace.  
Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat.  
Dominant herb/grass sp. couch, bermuda. Population abundance frequent,  
distribution patchy. Growth habit erect.

The following were collected by Peter Cunningham, Dept. of Agriculture &  
Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria  
3300, Australia; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue  
Hadi Karray, Ariana, Tunisia; Walter Graves, University of California  
Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California  
92119-1219, United States. Received 08/19/1994.

**PI 632495. *Dactylis glomerata*** L.

Wild. T047.CPG94; W6 16021. Collected 06/24/1994 in Tunisia. Latitude 36  
deg. 57' 51'' N. Longitude 8 deg. 45' 34'' E. Elevation 56 m. Near  
Tabarka, north of Tabarka at the Turkish fort (Borj Massaoud). Grazed.  
Slope 11-40%, aspect E. Area open. Soil loam, pH 6.5. Rainfall 1000 mm.  
Seasonally dry, ridgetop, lower-upper slope. Vegetation closed, seasonal  
tall grass. Dominant tree sp. pine. Dom. herb/grass sp. *Hyperrenia*  
*hirta*. Population abundance frequent, distribution patchy. Growth habit  
erect.

**PI 632496. *Festuca arundinacea*** Schreb.

Wild. T021.CPG94; W6 15995. Collected 06/22/1994 in Tunisia. Latitude 36 deg. 29' 24'' N. Longitude 9 deg. 9' 50'' E. Elevation 580 m. Near Ain Meuiti, 10 k west of Teboursouk on C75 road to Bou Salem. Grazed. Slope 6-10%, aspect E. Area open. Soil clay, vertisol, pH 8.5-9.0. Rainfall 575 mm. Moist, mid slope. Vegetation closed, seasonal tall grass. Surrounding veg. agriculture, dryland wheat. Dominant herb/grass species couch, bermuda. Population abundant, distribution patchy. Growth habit erect.

**PI 632497. *Dactylis glomerata* subsp. *hispanica* (Roth) Nyman**

Wild. T014.CPG94; W6 15988. Collected 06/22/1994 in Tunisia. Latitude 36 deg. 28' 30'' N. Longitude 9 deg. 17' 21'' E. Elevation 220 m. Near Ain Tonga, 72 k east of lekef on P5. Grazed. Slope 11-40%, aspect NW. 1/4 shade. Soil loam, pH 8.5+. Rainfall 475 mm. Seasonally dry, ravine. Vegetation closed, open evergreen scrub with closed ground cover. Surrounding veg. agriculture, dryland wheat. Population abundance frequent, distribution patchy. Growth habit erect.

**PI 632498. *Dactylis glomerata* L.**

Wild. T013.CPG94; W6 15987. Collected 06/21/1994 in Tunisia. Latitude 36 deg. 47' 39'' N. Longitude 10 deg. 33' 42'' E. Elevation 300 m. Near Korbous, 15 k North of Soliman. Grazed. Slope 11-40%, aspect W. 1/4 shade. Soil loam, very harsh rock, eroded, pH 8.5. Rainfall 425 mm. Seasonally dry, rock outcrop. Vegetation closed evergreen scrub with scattered trees. Dominant shrub sp. Maquis - North African. Population abundance occasional, distribution patchy. Growth habit erect.

**PI 632499. *Dactylis glomerata* L.**

Wild. T009.CPG94; W6 15983. Collected 06/21/1994 in Tunisia. Latitude 36 deg. 48' 59'' N. Longitude 10 deg. 59' 23'' E. Elevation 6 m. Near skalba, 4 k west of Menzer Temine on C45. Grazed. Slope 6-10%, aspect NE. Open. Soil clay, vertisol, hydromorphic, pH 8.5. Rainfall 425 mm. Moist, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. agricultural, dryland wheat. Dominant herb/grass sp. couch, bermuda. Population abundance frequent, distribution patchy. Growth habit erect.

The following were donated by James C. Read, Texas A&M University, Texas Agricultural Experiment Station, Research and Extension Center, Dallas, Texas 75252-6502, United States. Received 1997.

**PI 632500. *Poa arachnifera* Torr.**

Wild. TX 51-90; TBPC 51-90; W6 17711. Collected in Texas, United States. Archer County.

**PI 632501. *Poa arachnifera* Torr.**

Wild. TX 49-90; TBPC 49-90; W6 17710. Collected in Texas, United States. Archer County.

**PI 632502. *Poa arachnifera* Torr.**

Wild. TX 39-88; TBPC 39-88; W6 17705. Collected in Texas, United States. Foard County.

**PI 632503. *Poa arachnifera* Torr.**

Wild. TX 19-88; TBPC 19-88; W6 17704. Collected in Texas, United States. Palo Pinto County.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 07/28/1996.

**PI 632504. *Poa* sp.**

Wild. B96-263; W6 19425. Collected 07/1996 in Bulgaria. Latitude 42 deg. 44' 15'' N. Longitude 24 deg. 37' 10'' E. Elevation 1064 m. Balkan Mountains. Steep rocky bank. *Trifolium*, *Lotus*, *Fagus*.

The following were collected by Jerrold I. Davis, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; K. Guneş, Ankara University, Ankara, Ankara, Turkey; U. Bingöl, Ankara University, Ankara, Ankara, Turkey. Received 02/10/1997.

**PI 632505. *Festuca valesiaca* Schleich. ex Gaudin**

Wild. 4159; W6 19226. Collected 07/23/1993 in Ankara, Turkey. Latitude 39 deg. 27' N. Longitude 32 deg. 29' E. Elevation 1098 m. 31 km southeast of Polatlı on Route 260 to Haymana, north of Haymana about 8 road km. Somewhat gypseous steppe, east facing 30% slope in breaks of low hills of Central Anatolian Basin. Loamy soils, with 70% grass cover between agricultural fields. With *Stipa holosericea*, *Poa pseudobulbosa*, *Festuca valesiaca*, *Koeleria*, *Hordeum bulbosum*, *Dactylis*, *Cretaeus*.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 632506. *Elymus lanceolatus* (Scribn. & J. G. Sm.) Gould**

Wild. D-2845; R-14-1-5 1985; W6 14218. Collected in Utah, United States. In sagebrush-juniper 5 miles east of Park Valley, Utah.

**PI 632507. *Elymus lanceolatus* (Scribn. & J. G. Sm.) Gould**

Wild. D-2847; R-13-6-10 1985; W6 14220. Collected in Idaho, United States. In sagebrush-cheatgrass 5 miles east of Shoshone, Idaho.

The following were donated by John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States. Received 02/08/1990.

**PI 632508. *Pascopyrum smithii* (Rydb.) A. Love**

Wild. 1331; W6 3277. Collected 1979 in South Dakota, United States. Elevation 1110 m. Fall River County. LD: NENE36 9S 1 E.

The following were collected by David S. Marshall, Texas A&M University, Research & Extension Center, 17360 Coit Road, Dallas, Texas 75252-6599, United States; Lloyd R. Nelson, Texas A&M University, Agricultural Research &

Extension Center, P.O. Box 200, Overton, Texas 75684, United States. Donated by Lloyd R. Nelson, Texas A&M University, Agricultural Research & Extension Center, P.O. Box 200, Overton, Texas 75684, United States. Received 01/22/1993.

**PI 632509. *Agropyron cristatum* (L.) Gaertn.**

Wild. 685; W6 11316. Collected 07/19/1992 in Ankara, Turkey. Elevation 950 m. Agricultural area, Polatli.

The following were donated by Research Centre for Agrobotany, I.P.P.Q., H-2766 Tapioszele. Received 11/25/1992.

**PI 632510. *Lolium perenne* L.**

Cultivar. "KARCAGI"; 1087; W6 11123.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 632511. *Poa sterilis* M. Bieb.**

Wild. UKR-99-154; W6 21807. . Collected 08/01/1999 in Krym, Ukraine. Latitude 44 deg. 44' 37'' N. Longitude 34 deg. 28' 33'' E. Elevation 120 m. Going east toward Malorichers near road A-294. South slope, moderate to steep, rocky.

**PI 632512. *Bromus commutatus* Schrad.**

Wild. UKR-99-066; W6 21746. . Collected 07/29/1999 in Krym, Ukraine. Latitude 44 deg. 44' 27'' N. Longitude 33 deg. 55' 12'' E. Elevation 465 m. Near Monastery and cave dwelling(hora Chufutkale) near Bakhchsarai. South slope, rocky, steep.

**PI 632513. *Lolium rigidum* subsp. *lepturoides* (Boiss.) Sennen & Mauricio**

Wild. UKR-99-063; W6 21744. . Collected 07/29/1999 in Krym, Ukraine. Latitude 44 deg. 34' 13'' N. Longitude 33 deg. 56' 36'' E. Elevation 300 m. Off road A-296 near Aromat. Flat, rocky, dry. Sparse.

**PI 632514. *Koeleria macrantha* (Ledeb.) Schult.**

Wild. UKR-99-056; W6 21740. . Collected 07/29/1999 in Krym, Ukraine. Latitude 44 deg. 28' 49'' N. Longitude 34 deg. 2' 30'' E. Elevation 1200 m. West of Yalta and near road A-296. Mostly flat, black soil, high plateau.

The following were collected by Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzhert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

**PI 632515. *Festuca arundinacea* Schreb.**

Wild. C152; W6 20368. Collected 08/1997 in California, United States. Elevation 0 m. Crescent City, near information center, Redwoods National Park on bank leading down to estuary. Sand, 0-5%, 1/4 shade, moist.

**PI 632516. *Festuca arundinacea* Schreb.**

Uncertain. C13; W6 20353. Collected 08/1997 in California, United States. Elevation 0 m. One mile north of Cambria on Highway 1. Rough pasture. Loam, 1/4 shade, 0-5% slope, alluvial fan.

**PI 632517. *Lolium perenne* L.**

Uncertain. C101; W6 20338. Collected 07/1997 in California, United States. Latitude 38 deg. 27' 40'' N. Longitude 123 deg. 8' 49'' W. Elevation 25 m. Jenner. North of Jenner, one mile above coast. Grazed. Sand/Loam. Slope 6-10%. Open. Seasonally dry. Lower slope.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632518. *Pseudoroegneria spicata* (Pursh) A. Love**

Wild. Acc:1156; B34; W6 20913. Collected in Utah, United States. Levan, Juab County.

The following were donated by Albert J. Oakes, USDA-ARS, Germplasm Resources Laboratory, Bldg. 001, Beltsville, Maryland, United States. Received 01/14/1992.

**PI 632519. *Bromus leptoclados* Nees**

Cultivated. Q 21736; Q 21741; W6 9479. Collected in Kenya.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 632520. *Festuca callieri* (Hack. ex St.-Yves) Markgr.**

Wild. UKR-99-055; W6 21739. Collected 07/29/1999 in Krym, Ukraine. Latitude 44 deg. 28' 49'' N. Longitude 34 deg. 2' 30'' E. Elevation 1200 m. West of Yalta and near road A-296. Mostly flat, black soil, high plateau. Fine-leaved bunchgrass, sparse.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632521. *Nassella viridula* (Trin.) Barkworth**

Wild. T-908; W6 20890. Collected in Alberta, Canada. Latitude 49 deg.

48' N. Longitude 114 deg. 9' W. Highway 22 and Highway 517 junction at Oldman River bridge.

The following were donated by Richard R. Smith, USDA, ARS, U.S. Dairy Forage Research Center, University of Wisconsin, Madison, Wisconsin 53706, United States. Received 04/02/1991.

**PI 632522. *Festuca arundinacea* Schreb.**

Cultivated. Yu-BL-14; W6 7395. Collected in Yugoslavia.

**PI 632523. *Festuca arundinacea* Schreb.**

Cultivated. Yu-B-1; W6 7392. Collected in Yugoslavia.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632524. *Leymus cinereus* (Scribn. & Merr.) A. Love**

Wild. T-973; W6 20922. Collected in Washington, United States. Latitude 47 deg. 7' N. Longitude 117 deg. 39' W. 3.5 miles west of town of St. John on Highway 23 between mile markers 17 and 18 in Whitman County.

The following were collected by Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

**PI 632525. *Festuca rubra* L.**

Wild. OR106; W6 20446. Collected 08/1997 in Oregon, United States. Latitude 44 deg. 30' 37'' N. Longitude 124 deg. 1' 53'' W. Elevation 100 m. Town of Ona, Beaver Creek Road, 1 mile before turnoff towards Ona. Infertile hill sloping down to river terrace. Ridgetop+upperslope+stream terrace. Grazed. Loam, 6-40% slope, open, moist.

**PI 632526. *Festuca rubra* L.**

Uncertain. OR90; W6 20434. Collected 08/1997 in Oregon, United States. Latitude 46 deg. 1' 48'' N. Longitude 123 deg. 55' 43'' W. Elevation 2 m. Town of Gearhart, Gearhart Beach on dune sand, less than 100 m from the ocean. Sand dune, 0-5% slope, open, seasonally dry.

**PI 632527. *Lolium perenne* L.**

Uncertain. OR44; W6 20407. Collected 08/1997 in Oregon, United States. Latitude 44 deg. 5' 44'' N. Longitude 123 deg. 42' 54'' W. Elevation 81 m. Near town of Greenleaf, 4 - 5 miles east of Deadwood on Route 36. Town of Greenleaf. Grazed/mown, loam, 0-5% slope, open, seasonally dry, stream terrace.

**PI 632528. *Lolium multiflorum* Lam.**

Uncertain. OR34; W6 20399. Collected 08/1997 in Oregon, United States. Latitude 44 deg. 1' 14'' N. Longitude 124 deg. 2' 7'' W. Elevation 81 m. East of Florence, Lane County toward Minerva. 5.4 miles up local road 5070. Grazed, loam, 0-5%, open, moist, stream terrace. Field not

renewed in 41 years. Legumes dominant.

**PI 632529. *Festuca arundinacea* Schreb.**

Uncertain. OR32; W6 20397. Collected 08/1997 in Oregon, United States. Latitude 43 deg. 39' 22'' N. Longitude 124 deg. 5' 22'' W. Elevation 86 m. 3 miles southeast of Reedsport, Douglas County on Route 55. Grazed (cattle), sand/loam, 0-5% slope, open, seasonally inundated, stream terrace. Field very wet in winter.

**PI 632530. *Festuca arundinacea* Schreb.**

Wild. OR12; W6 20380. Collected 08/1997 in Oregon, United States. Latitude 43 deg. 19' 14'' N. Longitude 124 deg. 20' 36'' W. Elevation 30 m. 1 mile southeast of Charleston 1/2 mile inland. Logged/cleared, sand, 0-5% slope, open, seasonally dry.

The following were collected by Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Melvin Rumbaugh, R.R. 3, Box 125, Humboldt, Nebraska 68376, United States; Nicolay Portinier, Kamorov Institute of Botany, St. Petersburg, Leningrad, Russian Federation; Jay Hart, 20 Bush Lane, Ithaca, New York 14850, United States; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

**PI 632531. *Phleum montanum* K. Koch**

Wild. 0130; VIR 262; US 130; W6 17860. Collected 09/07/1995 in Russian Federation. Latitude 43 deg. 28' 27'' N. Longitude 41 deg. 40' 54'' E. Elevation 1800 m. Karachayevo-Cherkesskaya Republic, 8 km. west of Teberda. Past logged, now grazed. Slope 41-60%, aspect S. Light 3/4 to shaded. Soil loam, pH 5.7-6.0. Seasonally dry, lower-mid slope. Vegetation closed, evergreen open forest with closed lower layers. Surrounding vegetation same. Dominant tree species *Pinus* s., *Hamata* on S. slope, *Abies* n., *Picea* o. on N. slope. Dominant shrub species *Juniperus oblonga*, *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Achillea* sp., *Trifolium* sp., *Coronilla* sp., *Lotus* c., *Deschampsia* c., *Festuca* sp., *Agrostis* sp., *Calamagrostis*. Population distribution patchy, abundance occasional. Growth habit erect. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632532. *Pseudoroegneria spicata* (Pursh) A. Love**

Wild. Acc:1159; KJ10; W6 20916. Collected in Utah, United States. Salina Canyon, Sevier County.

The following were collected by Kay H. Asay, USDA, ARS, Forage & Range Research Unit, Utah State University, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah

State University, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/24/1993.

**PI 632533. *Agropyron cristatum* (L.) Gaertn.**

Wild. JA-11; VIR U-0134754; W6 13286. Collected in Kazakhstan. Latitude 50 deg. 15' N. Longitude 58 deg. 18' E. Elevation 335 m. Silty-loam soil, along stream bottom, waste area, 80km east of Aktyubinsk, north edge of Khromtau. Annual precipitation 300mm. Vegetation - *Bromus inermis*, *Agropyron cristatum*, *A. desertorum*, *A. fragile*, *Artemisia* spp., *Psathyrostachys juncea*, and annual weeds.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632534. *Nassella viridula* (Trin.) Barkworth**

Wild. T-867; W6 20880. Collected in New Mexico, United States. Elevation 1821 m. 1 mile southeast of town of Grenville on Highway 64/87 in Union County.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632535. *Poa versicolor* subsp. *stepposa* (Krylov) Tzvelev**

Wild. 98HV-182; W6 21557. Collected 09/1998 in Mongolia. Latitude 50 deg. 33' 50'' N. Longitude 100 deg. 36' 6'' E. Elevation 1829 m. Chandmanundur Sum, Hovsgol Aimag, 38 km west of Hohoo. Crest of small pass, edge of larch forest, invading in abandoned road tracks, mountain light brown soil. Associated vegetation: *Larix sibiricus*, *Festuca ovina*, *Bromus pumpellianus*, *Vicia cracca*, *Aster alpinus*, *Artemisia laciniata*, *Dendranthema zawadskii*, *Geranium pseudosibiricum*.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 03/06/1997.

**PI 632536. *Koeleria glauca* DC.**

Wild. 96N-247; W6 19737. Collected 08/1996 in Mongolia. Latitude 49 deg. 18' 13'' N. Longitude 94 deg. 30' 42'' E. Elevation 2125 m. 5% slope. East aspect hillside just below the *Larix* timber. Road is below the site. Soils are almost white in color and appear to be fine texture. Normally a wet meadow area, but dry this year. DOMINANT VEG: *Agrostis trinii*, *Carex pediformis*, *Poa pratensis*, *Koeleria glauca* ECOLOGICAL ZONE: Forest steppe.

The following were collected by Warren M. Williams, Agriculture Research,

Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

**PI 632537. *Lolium multiflorum* Lam.**

Wild. OR94; W6 20436. Collected 08/1997 in Oregon, United States. Latitude 45 deg. 44' 26'' N. Longitude 123 deg. 57' 19'' W. Elevation 100 m. Cape Falcon, Tillamook County. Cliff-top, frost free, roadside. Clay, 11-40% slope, open, seasonally dry.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

**PI 632538. *Lolium perenne* L.**

Wild. S079.CPG94; W6 16184. Collected 07/07/1994 in Sardinia, Italy. Latitude 39 deg. 58' 46'' N. Longitude 9 deg. 26' 28'' E. Elevation 895 m. 3 k north of Villanova off road S389, Fonni-Lanusei. Grazed. Slope 0-5%, aspect E. 1/4 shade. Soil sand, granitic rock, pH 5.0. Rainfall 1000 mm. Moist, stream terrace. Vegetation closed, seasonal short grass. Surrounding veg. evergreen open forest with closed lower layers. Population abundance occasional, distribution patchy. Growth habit semi-erect.

The following were donated by James C. Read, Texas A&M University, Texas Agricultural Experiment Station, Research and Extension Center, Dallas, Texas 75252-6502, United States. Received 1997.

**PI 632539. *Poa arachnifera* Torr.**

Wild. TX 4-88; TBPC 4-88; W6 17706. Collected in Texas, United States.

The following were donated by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632540. *Elymus multisetus* (J. G. Sm.) Burt Davy**

Wild. 9034042; Acc:1132; W6 20962. Collected in Nevada, United States. T42N R39E Section 33. Above Singas Creek in Paradise Valley in Humboldt County. Received as: *Elymus elymoides* var. *jubatum*.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632541. *Elymus uralensis* subsp. *komarovii* (Nevski) Tzvelev**

Wild. 98HT-301; W6 21370. Collected 09/1998 in Mongolia. Latitude 48 deg. 19' N. Longitude 110 deg. 1' 4'' E. Elevation 1219 m. Daduul Sum, Henti Aimag. Both sides of a pass between two small stream drainages. Soils are very rocky and gravelly and formed from eroded granite. Associated vegetation: Forest steppe with high vegetation diversity in forest openings.

The following were donated by Research Centre for Agrobotany, I.P.P.Q., H-2766 Tapioszele. Received 11/25/1992.

**PI 632542. *Lolium perenne* L.**

Cultivar. "GEORGIKON"; 1086; W6 11122.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

**PI 632543. *Dactylis glomerata* L.**

Wild. M177.CPG94; W6 15906. Collected 07/26/1994 in Morocco. Latitude 31 deg. 10' 54'' N. Longitude 8 deg. 47' 28'' W. Elevation 730 m. Near Imi-N-Tanute (Bou-Laouane), 3 k south of Bou-Laouane off road 6404. Grazed. Slope 0-5%, aspect N. Open. Soil sandy loam on alluvium terrace from calcareous rock of schist/limestone, pH 10.0. Rainfall 300 mm. Moist, stream terrace. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen steppe forest & scrub. Population abundance frequent, distribution patchy. Growth habit erect.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 632544. *Elymus ciliaris* subsp. *japonicus* A. Love**

Wild. D-3425; MA-142-1-5 1986; W6 14249. Collected in China.

Fei-xian-guan, Ya-an, Sichuan Province.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 03/06/1997.

**PI 632545. *Stipa capillata* L.**

Wild. 96S-117; W6 19630. Collected 09/1996 in Mongolia. Latitude 49 deg. 55' 1'' N. Longitude 92 deg. 39' 26'' E. Elevation 860 m. Ubs Aimag, Narnabulag Sum, Ulaanboorog, adjacent to Ubs Noer (lake). 1% north slope. Old prehistoric lake bed of Ubs Noer that is covered with alluvial materials. Soils are coarse gravels with voids filled with coarse brown sand. DOMINANT VEG: *Ceratoides papposa*/*Elymus poboanus* + *Achnatherum splendens*, *Elymus chinensis*, *Stipa capillata*, *Artemisia*

frigida.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632546. *Poa attenuata* subsp. *argunensis*** (Roshev.) Tzvelev

Wild. 98HT-219; W6 21299. Collected 09/1998 in Mongolia. Latitude 48 deg. 35' 10" N. Longitude 110 deg. 41' 41" E. Elevation 1036 m. Binder Sum, Henti Aimag. Varied terrain on E bank of Onon River. Soils varied with microsite, but were generally fine sand along the river and sandy throughout the area, except where deeper soils had developed under tree overstory. Associated vegetation: Salix dominated diverse vegetation close to the river. On uplands away from the river and on southerly aspects, vegetation was grass steppe (*Poa*, *Stipa*, and *Leymus*). On northerly aspects, *Larix* forest steppe with some areas having more shr.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 05/1995.

**PI 632547. *Kengia songorica*** (Roshev.) Packer

Wild. E94066; W6 18025. Collected 09/1994 in Mongolia. Latitude 45 deg. 47' 17" N. Longitude 111 deg. 24' 17" E. Elevation 976 m. Northern edge of desert steppe. Desert steppe. Soils light brown, sandy loam texture.

The following were collected by Jerrold I. Davis, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; K. Guney, Ankara University, Ankara, Ankara, Turkey; U. Bingol, Ankara University, Ankara, Ankara, Turkey. Received 02/10/1997.

**PI 632548. *Psilurus incurvus*** (Gouan) Schinz & Thell.

Wild. 4154; W6 19225. Collected 07/22/1993 in Usak, Turkey. Latitude 38 deg. 38' N. Longitude 29 deg. 19' E. Elevation 732 m. 10 km southwest of Usak along road to Kayaagil. Shallow south facing, gentle (10-30%) valley slopes. Thin sandy to fine gravelly soils, derived from mudstone, overlaying very pale (almost white) sandstone. In and around copses of *Quercus coccifera*. On white sandstone soils.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718,

United States. Received 05/05/1999.

**PI 632549. *Agrostis mongolica* Roshev.**

Wild. 98HV-26; W6 21408. Collected 09/1998 in Mongolia. Latitude 49 deg. 43' 59'' N. Longitude 106 deg. 45' 13'' E. Elevation 732 m. Yoroo Sum; Selenge Aimag; East of Yoroo. Meadow Chernozem, lowlands in Eroo River Valley. Associated vegetation: *Agrostis mongolica*, *Hordeum brevisubulatum*, *Polygonum sibiricum*, *Saussurea* sp.

The following were collected by Kay H. Asay, USDA, ARS, Forage & Range Research Unit, Utah State University, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/25/1993.

**PI 632550. *Bromus inermis* Leyss. subsp. *inermis***

Wild. JA-317; VIR U-0134731; K-39141; W6 13175. Collected 01/1993 in Russian Federation. Collected in Penza Region.

The following were collected by Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzerherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

**PI 632551. *Festuca arundinacea* Schreb.**

Uncertain. C144; W6 20364. Collected 08/1997 in California, United States. Elevation 0 m. Southern edge of town of Arcata near traffic patrol offices. Grazed (cattle), sand, 0-5% slope, open, moist, alluvial fan.

**PI 632552. *Festuca arundinacea* Schreb.**

Uncertain. OR18; W6 20383. Collected 08/1997 in Oregon, United States. Latitude 43 deg. 32' 33'' N. Longitude 124 deg. 9' 20'' W. Elevation 89 m. Templeton Valley at bridge, lower paddock (of two). From Hauser, 8 miles up the road to Templeton. Grazed, loam, 0-5% slope, open, seasonally inundated, stream terrace. Once good pasture, but creek became blocked and now it's wet in winter and rushes had spread.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

**PI 632553. *Lolium perenne* L.**

Wild. S071.CPG94; W6 16176. Collected 07/07/1994 in Sardinia, Italy. Latitude 40 deg. 4' 7'' N. Longitude 8 deg. 56' 13'' E. Elevation 440 m. 1 k west of Neoneli, 4 k east of Ardauli on SP15. Grazed. Slope 0-5%, aspect NW. 1/2 shade. Soil loam, granitic/trachiti transition, pH 6.0-6.5. Seasonally dry, mid slope, swale meadow. Vegetation closed, seasonal tall grass. Surrounding veg. closed evergreen scrub with

scattered trees. Population abundance occasional, distribution patchy. Growth habit semi-erect.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 11/30/1993.

**PI 632554. *Pseudoroegneria geniculata* (Trin.) A. Love**

Wild. DJ-4016; MB-84-11-20; W6 14071. Collected 08/16/1989 in Uzbekistan. Elevation 730 m. On sandy bank of Katun River near the 681km marker on Hwy M-52 (15km south of Cheketeman camp) toward Aktash and parallel to the Katun River (Gorno Altay A.O.). Rhizomatous. Leaves fine. Awned.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

**PI 632555. *Dactylis glomerata* L.**

Wild. M197.CPG94; W6 15926. Collected 07/27/1994 in Morocco. Latitude 31 deg. 17' 59'' N. Longitude 8 deg. 5' 50'' W. Elevation 1025 m. Near Asni, 22 km south of Asni on S501, taroudante to Marrakech. Grazed. Slope 0-5%, aspect N. 1/4 shade. Soil sandy loam on calcareous schale/schist, pH 9.0-9.5. Rainfall 400 mm. Moist, stream terrace, irrigation ditch. Vegetation closed, seasonal tall grass. Population abundance frequent, distribution patchy. Growth habit erect.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Developed by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; D.C. Nielson, USDA, ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; S.A. Young, Utah State University, Plants, Soils, and Biometeorology Department, Logan, Utah 84322-4820, United States. Received 09/1998.

**PI 632556. *Nassella viridula* (Trin.) Barkworth**

Wild. T-872; Cucharas; W6 20882. GP-86. Collected in Colorado, United States. Latitude 37 deg. 40' N. Longitude 104 deg. 42' W. Elevation 1880 m. 4.5 miles northeast of town of Walsenburg on Highway 10 in Huerfano County. Pedigree - Cucharas was increased from T-872, an original collection near Walsenburg, Colorado. No selection was practiced on this accession. Released 2003. T-872 possessed high germination without prechill compared to 30 accessions from Alberta, North Dakota, South Dakota, Montana, Colorado, and New Mexico, surpassing the two commercially available cultivars. Seed through generation G-5 will be eligible for certification.

The following were donated by Welsh Plant Breeding Station, Genetic Resources Unit, Aberystwyth, Wales, United Kingdom. Received 09/03/1991.

**PI 632557. *Lolium multiflorum* Lam.**

Wild. ABY-BB 1655.75; W6 9247. Collected in Italy. Latitude 44 deg. 46' N. Longitude 7 deg. 33' E. Elevation 240 m. Moretta.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 05/1995.

**PI 632558. *Poa pratensis* L.**

Wild. E94015; W6 17990. Collected 09/1994 in Mongolia. Latitude 47 deg. 6' 23'' N. Longitude 109 deg. 11' 10'' E. Elevation 1372 m. Near Ghengis Khan Monument approximately 100 km east of Tariat Research Station. Along small river draining the southern end of Hentii Mountains into Herlen River. Grass steppe. Marshy ground along river with surface dominated by crumholtz mounds. Typical marsh soils. Aspect S-SE, 1-2% slope.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632559. *Agrostis trinii* Turcz.**

Wild. 98HT-269; W6 21343. Collected 09/1998 in Mongolia. Latitude 48 deg. 52' 10'' N. Longitude 111 deg. 30' 30'' E. Elevation 1036 m. Daduul Sum, Henti Aimag. Marshy floor of small valley within forest steppe. Soils were wet at time of collection. Associated vegetation: Marshy and wet meadow species.

The following were collected by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/02/1993.

**PI 632560. *Bromus inermis* Leyss. subsp. *inermis***

Wild. X93191; W6 13097. Collected 08/20/1993 in Xinjiang, China. Latitude 43 deg. 46' N. Longitude 89 deg. 27' E. Elevation 1300 m. Silty soil, 48km south of Chitai, very dry rolling foot hills used for winter pastures, Xinjiang.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632561. *Nassella viridula* (Trin.) Barkworth**

Wild. T-895; W6 20889. Collected in Colorado, United States. Latitude 39 deg. 30' N. Longitude 108 deg. 45' W. 24.5 miles north of town of Loma on Highway 139 in Garfield County.

The following were collected by T.A. Campbell, USDA-ARS, Germplasm Quality and Enhancement Lab, Building 001, Room 339, Beltsville, Maryland 20705, United States; John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Larry K. Holzworth, USDA-NRCS State Office, Federal Bldg., Room 443, 10 E. Babcock, Bozeman, Montana 59715-4704, United States. Received 12/1997.

**PI 632562. *Poa lipskyi* Roshev.**

Wild. X97-122; W6 20281. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 29' 16'' N. Longitude 81 deg. 7' 4'' E. Elevation 1800 m. 50 km south of Yili City, Xinjiang. Hillside with sandy loam soil and shale fragments measuring 2 to 15 cm length. Moderately grazed. Slope is 45% with west aspect.

The following were donated by Welsh Plant Breeding Station, Genetic Resources Unit, Aberystwyth, Wales, United Kingdom. Received 09/03/1991.

**PI 632563. *Lolium multiflorum* Lam.**

Wild. ABY-BB 1704.75; W6 9263. Collected in Italy. Latitude 45 deg. 52' N. Longitude 9 deg. 53' E. Elevation 420 m. Ponte Nossa.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 632564. *Elymus antiquus* (Nevski) Tzvelev**

Wild. D-4265; MB-102-31-40 1992; H-8338; W6 14298. Collected 09/20/1988 in China. Elevation 3350 m. Ape bridge 13km east of Gongbogyamda, Tibet Province.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Production & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 632565. *Agropyron dasyanthum* Ledeb.**

Wild. UKR-99-254; W6 21882. . Collected 08/03/1999 in Krym, Ukraine. Latitude 45 deg. 22' 42'' N. Longitude 35 deg. 55' 46'' E. Elevation 10 m. Near Pischne and Azov Sea. Flat, sandy, marsh.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco; Mohammed Tazi, Morocco. Received 08/19/1994.

**PI 632566. *Dactylis glomerata* L.**

Wild. M184.CPG94; W6 15913. Collected 07/26/1994 in Morocco. Latitude 31 deg. 2' 39'' N. Longitude 8 deg. 43' 34'' W. Elevation 1890 m. Near Tiznit/Bou-Laouane, 40 k south of Bou-Laouane on road 6404 near village Tiznit. Grazed. Slope 11-40%, aspect E. Area open area. Soil sandy loam on rocky schist, pH 8.5. Rainfall 400 mm. Moist, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. degraded evergreen open forest with closed lower layers. Population abundance occasional, distribution patchy. Growth habit erect.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue Hadi Karray, Ariana, Tunisia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

**PI 632567. *Festuca arundinacea* Schreb.**

Wild. T033.CPG94; W6 16007. Collected 06/23/1994 in Tunisia. Latitude 36 deg. 25' 47'' N. Longitude 9 deg. 12' 51'' E. Elevation 510 m. Near Douga, 1 k east of Douga on road 702. Grazed. Slope 6-10%, aspect E. Area open. Soil clay, vertisol, cracking, pH 8.5-9.0. Rainfall 525 mm. Seasonally inundated, ravine, stream terrace. Vegetation closed, seasonal tall grass. Surrounding veg. agriculture, dryland wheat. Population abundant, distribution patchy. Growth habit erect.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Simonetta Bullitta, Sardinia, Italy. Received 08/19/1994.

**PI 632568. *Festuca arundinacea* Schreb.**

Wild. S039.CPG94; W6 16144. Collected 07/05/1994 in Sardinia, Italy. Latitude 41 deg. 5' 9'' N. Longitude 9 deg. 21' 31'' E. Elevation 20 m. Near Arzachena, 2 k west of Arzachena on road Bassacutena-Arzachena. Grazed. Slope 0-5%, aspect NE. Open. Soil clay, pH 6.0-6.5. Rainfall 770 mm. Seasonally inundated, stream terrace. Vegetation closed, evergreen broad-leaved herb vegetation. Surrounding veg. evergreen open forest with closed lower layers. Population abundance occasional, distribution patchy. Growth habit erect.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 05/1995.

**PI 632569. *Kengia squarrosa*** (Trin.) Packer

Wild. E94005; W6 17986. Collected 09/1994 in Mongolia. Latitude 47 deg. 12' N. Longitude 108 deg. 40' 39'' E. Elevation 1448 m. On and surrounding the Tariat Research Station near Herlen River, Hentii Aimag. Grass steppe uplands above river floodplain. Previously large areas have been plowed in attempt to grow cereals. Most of plowed land abandoned to weeds. Soils shallow, gravelly, and obvious low fertility.

**PI 632570. *Elymus nevskii*** Tzvelev

Wild. 96N-336; W6 19811. Collected 09/1996 in Mongolia. Latitude 48 deg. 57' 22'' N. Longitude 89 deg. 50' 24'' E. Elevation 1848 m. Bayan-Olgii Aimag, 8.5 km due west of Olgii in deep north running dry canyon. The main west road is in the bottom of the canyon collections were made on the west side where surface is loose rock and gravel and slope is more than 60%. Soils are mostly gravel, sand, and some light tan material. DOMINANT VEG: *Leymus chinensis*, *Artemisia frigida*, *Artemisia adamsii*, *Agropyron cristatum*, *Vicia* sp. ECOLOGICAL ZONE: Mountain steppe.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632571. *Alopecurus arundinaceus*** Poir.

Wild. 98HT-127; W6 21229. Collected 09/1998 in Mongolia. Latitude 48 deg. 35' 16'' N. Longitude 110 deg. 5' 46'' E. Elevation 1158 m. Batchirrit Sum, Henti Aimag. Gravel bars, sloughs, and adjacent river terraces along east bank of Balgt River with *Salix* and *Populus* trees along the river channel. Soils are dark with little rock or gravel present except along river channel. Associated vegetation: *Salix* dominated-vegetation along the river. Vegetation along valley terraces is typical grass steppe in a forest steppe ecological zone. Many plant species are successional following fire.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue Hadi Karray, Ariana, Tunisia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

**PI 632572. *Festuca arundinacea*** Schreb.

Wild. T024.CPG94; W6 15998. Collected 06/22/1994 in Tunisia. Latitude 36 deg. 31' 40'' N. Longitude 9 deg. 6' 5'' E. Elevation 293 m. Near Thibar, east edge of Thibar on C75E. Grazed. Slope 0-5%, aspect N. Area open. Soil clay, vertisol, pH 9.0. Rainfall 600 mm. Moist, alluvial fan, swale. Vegetation closed, seasonal tall grass. Settlement surrounding. Dominant herb/grass sp. couch, bermuda. Assoc. sp. *Dactylis*. Population abundance frequent, distribution patchy. Growth habit erect.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 632573. *Elymus pendulinus*** (Nevski) Tzvelev

Wild. DJ-3841; MB-112-41-60 1992; W6 14361. Collected 08/10/1989 in Russian Federation. Elevation 350 m. Along Katun River near its confluence with the Sema River near Kamlak (Gorno Altay A.O.). Spikes small slender. Awns long straight.

The following were collected by Kay H. Asay, USDA, ARS, Forage & Range Research Unit, Utah State University, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/24/1993.

**PI 632574. *Agropyron fragile*** (Roth) P. Candargy

Wild. JA-60; VIR U-0134847; W6 13335. Collected in Kazakhstan. Latitude 47 deg. 2' N. Longitude 57 deg. 58' E. Elevation 220 m. Dry water way, 180km southwest of Chelkar. Annual precipitation 180mm. Dominant vegetation - *Artemisia terrae-albae*, *Agropyron* spp., *Stipa* spp., *Psathyrostachys juncea*, and *Ceratoides* spp.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

**PI 632575. *Lolium perenne*** L.

Wild. S102.CPG94; W6 16207. Collected in Italy. Latitude 39 deg. 44' 44'' N. Longitude 8 deg. 59' 49'' E. Elevation 590 m. 4 k west of Gesturi in "Giara di Gesturi," west of road SSN 197. Grazed. Slope 0-5%, aspect N. 1/2 shade. Soil loam, trachiti/basalt bedrock. Seasonally dry, plateau. Vegetation closed evergreen scrub with scattered trees. Dominant tree *Quercus* s. Dom. shrub *Cistus* sp. Dom. herb/grass short ann. grasses. Population abundance occasional, distribution patchy. Growth habit semi-erect.

The following were collected by T.A. Campbell, USDA-ARS, Germplasm Quality and Enhancement Lab, Building 001, Room 339, Beltsville, Maryland 20705, United States; John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Larry K. Holzworth, USDA-NRCS State Office, Federal Bldg., Room 443, 10 E. Babcock, Bozeman, Montana 59715-4704, United States. Received 12/1997.

**PI 632576. *Poa palustris*** L.

Wild. X97-027; W6 20219. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 15' 4'' N. Longitude 81 deg. 8' 7'' E. Elevation 2170 m. Hongnahai Village, 8 km north of Zhaosu County, Xinjiang. Mountain meadow, flat area near a stream, moderately grazed, wet flood plain, not saline, loam soil, dense vegetation cover. No slope.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 03/06/1997.

**PI 632577. *Agropyron michnoi* Roshev.**

Wild. 96N-380; W6 19841. Collected 09/1996 in Mongolia. Latitude 47 deg. 25' 10'' N. Longitude 103 deg. 38' 46'' E. Elevation 1355 m. Bulgan Aimag, located in mountain canyon several km north of the paved Arrayheer-Ulaanbaatar highway. 5% east slope. Hogin Kahn mountains are large boulders and steep with shrubs. DOMINANT VEG: *Festuca lenensis*, *Agropyron cristatum*, *Stipa capillata*, *Allim anisipodium*, *Artemisia frigida*, *Scabiosa fischer*, *Cleistogenes squarrosa*, *Caragana stenophylla*, *Carex pediformis* ECOLOGICAL ZONE: Mountain steppe.

The following were donated by John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States. Received 02/08/1990.

**PI 632578. *Pascopyrum smithii* (Rydb.) A. Love**

Wild. 398; W6 3291. Collected 1979 in South Dakota, United States. Elevation 1556 m. Custer County. LD: SENW36 3S 1E.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632579. *Poa attenuata* subsp. *argunensis* (Roshev.) Tzvelev**

Wild. 98HT-295; W6 21364. Collected 09/1998 in Mongolia. Latitude 48 deg. 19' N. Longitude 110 deg. 1' 4'' E. Elevation 1219 m. Daduul Sum, Henti Aimag. Both sides of a pass between two small stream drainages. Soils are very rocky and gravelly and formed from eroded granite. Associated vegetation: Forest steppe with high vegetation diversity in forest openings.

The following were collected by Kay H. Asay, USDA, ARS, Forage & Range Research Unit, Utah State University, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 10/25/1993.

**PI 632580. *Dactylis glomerata* L.**

Wild. JA-339; VIR U-0134861; W6 13197. Collected 07/30/1992 in Kazakhstan. Latitude 50 deg. 18' N. Longitude 57 deg. 38' E. Elevation 245 m. Along roadway, 30km east of Aktyubinsk. Annual precipitation 350-400mm. Dominant vegetation - *Stipa* spp. and *Artemisia terrae-albae*.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue Hadi Karray, Ariana, Tunisia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

**PI 632581. *Dactylis glomerata* L.**

Wild. T016.CPG94; W6 15990. Collected 06/22/1994 in Tunisia. Latitude 36 deg. 28' 40'' N. Longitude 9 deg. 10' 48'' E. Elevation 476 m. Near Teboursouk, 6 k west of Teboursouk on C75. Grazed. Slope 0-5%, aspect E. Area open. Soil clay, vertisol, pH 8.5-9.0. Rainfall 550 mm. Moist, ravine. Vegetation closed, evergreen tall grass. Surrounding veg. agriculture, dryland wheat. Population abundance occasional, distribution patchy. Growth habit erect.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

**PI 632582. *Festuca arundinacea* Schreb.**

Wild. S080.CPG94; 136449; W6 16185. Collected 07/07/1994 in Sardinia, Italy. Latitude 39 deg. 58' 46'' N. Longitude 9 deg. 26' 28'' E. Elevation 895 m. 3 k north of Villanova off road S389, Fonni-Lanusei. Grazed. Slope 0-5%, aspect E. 1/4 shade. Soil sand, granitic rock, pH 5.0. Rainfall 1000 mm. Seasonally inundate, stream terrace. Vegetation closed, seasonal short grass. Surrounding veg. evergreen open forest with closed lower layers. Population abundance occasional, distribution patchy. growth habit erect.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632583. *Nassella viridula* (Trin.) Barkworth**

Wild. T-459; W6 20877. Collected in Colorado, United States. Boulder.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632584. *Agrostis clavata* Trin.**

Wild. 98HT-76; W6 21192. Collected 09/1998 in Mongolia. Latitude 48 deg. 8' 3'' N. Longitude 110 deg. 8' 28'' E. Elevation 1219 m. State Farm, Horha Sum, Henti Aimag. Wet meadow bordering a small river with surface water present. Surrounding uplands are grass steppe. Associated vegetation: Typical wet meadow dominated by *Agrostis*, *Iris*, *Sonchum*, *Plantago*, *Potentilla*, and *Elymus*.

The following were collected by Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

**PI 632585. *Festuca arundinacea* Schreb.**

Uncertain. C131; W6 20355. Collected 08/1997 in California, United States. Elevation 0 m. 1/2 mile west of town of Loleta, on Cannibal Road. Grazed, unirrigated dairy farm. Sand/loam, open, 0-5% slope, seasonally dry, alluvial fan.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue Hadi Karray, Ariana, Tunisia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

**PI 632586. *Dactylis glomerata* L.**

Wild. T043.CPG94; W6 16017. Collected 06/23/1994 in Tunisia. Latitude 36 deg. 53' 42'' N. Longitude 9 deg. 11' 13'' E. Elevation 175 m. Near Nefza, 16 k south of Nefza on C52. Grazed. Slope 6-10%, aspect NE. Open. Soil clay, pH 8.5-9.0. Rainfall 650 mm. Moist, ravine. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat. Dominant herb/grass sp. couch, bermuda. Population abundance frequent, distribution patchy. Growth habit erect.

**PI 632587. *Festuca arundinacea* Schreb.**

Wild. T053.CPG94; W6 16027. Collected 06/24/1994 in Tunisia. Latitude 36 deg. 57' 51'' N. Longitude 8 deg. 45' 34'' E. Elevation 56 m. Near Tabarka, north of Tabarka at the Turkish fort (Borj Massaoud). Grazed. Slope 11-40%, aspect E. Area open. Soil loam, pH 6.5. Rainfall 1000 mm. Seasonally dry, ridgetop, lower-upper slope. Vegetation closed, seasonal tall grass. Dominant tree species pine. Dom. herb/grass sp. *Hyperrenia hirta*. Population abundance rare, distribution patchy. Growth habit erect.

**PI 632588. *Dactylis glomerata* L.**

Wild. T022.CPG94; W6 15996. Collected 06/22/1994 in Tunisia. Latitude 36 deg. 29' 24'' N. Longitude 9 deg. 9' 50'' E. Elevation 580 m. Near Ain Meuti, 10 k west of Teboursouk on C75 road to Bou Salem. Grazed. Slope 6-10%, aspect E. Area open. Soil clay, vertisol, pH 8.5-9.0. Rainfall 575 mm. Moist, mid slope. Vegetation closed, seasonal tall grass. Surrounding veg. agriculture, dryland wheat. Dominant herb/grass species couch, bermuda. Population abundance occasional, distribution patchy. Growth habit erect.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 632589. *Nassella viridula* (Trin.) Barkworth**

Wild. T-860; W6 20878. Collected in New Mexico, United States. Latitude 36 deg. 54' N. Longitude 106 deg. 47' W. Rio Arriba County, 0.2 miles east of Highway 64 and Highway 84 junction.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco. Received 08/19/1994.

**PI 632590. *Lolium perenne* L.**

Wild. M001.CPG94; W6 15730. Collected 07/12/1994 in Morocco. Latitude 35 deg. 7' 29'' N. Longitude 5 deg. 17' 18'' W. Elevation 460 m. Near Chefchaouen, 6 km. southeast of Chefchaouen on P39 (412). Grazed. Slope 6-10%, aspect SW. 1/4 shade. Soil loam, hydromorphis from shale & sandstones. Moist, basin, mid slope, spring weep/bog next to road, pH 6.5-7.0. Rainfall 900 mm. Area sampled 20,000 sq. m. Dominant tree species *Quercus suber*. Dom. shrub sp. *Pistacia lentiscus*. Dom. herb/grass sp. *Juncus* sp. Population distribution patchy, abundance occasional. Growth habit semi-erect.

The following were donated by James C. Read, Texas A&M University, Texas Agricultural Experiment Station, Reasearch and Extension Center, Dallas, Texas 75252-6502, United States. Received 1997.

**PI 632591. *Poa arachnifera* Torr.**

Wild. TX 46-90; TBPC 46-90; W6 17707. Collected in Texas, United States. Parker County.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Mustapha Bounejmate, Institut National de la Recherche Agrono, Programme Fourrages (INRA), B.P. 415, Rabat, Morocco; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Saddik Saidi, Morocco . Received 08/19/1994.

**PI 632592. *Dactylis glomerata* L.**

Wild. M122.CPG94; W6 15851. Collected 07/20/1994 in Morocco. Latitude 33 deg. 57' 16'' N. Longitude 5 deg. 3' 14'' W. Elevation 1880 m. Near Ait-Oufeua, 2 k north of Ait-Oufeua on P21, Azrou-Midelt, 52 k northwest of Midelt. Grazed. Slope 6-10%, aspect SE-SW. Open. Soil loam, heavy hydromorphic on calcareous limestone bedrock, pH 9.5-10.0. Seasonally dry, lower slope. Vegetation closed, evergreen tall grass. Surrounding veg. degraded evergreen forest and scrub. Population abundance frequent, distribution patchy. Growth habit erect.

The following were donated by Jerzy Puchalski, Polish Academy of Sciences, Botanical Garden, Center for Biological Diversity Conservation, Warsaw, Warszawa 02-973, Poland. Received 01/20/2003.

**PI 632593. *Secale cereale* L. subsp. *cereale***

Landrace. 17555; 77 A-48; NSGC 8872. Collected in Portugal. Latitude 39 deg. 30' N. Longitude 8 deg. 0' W.

**PI 632594. *Secale cereale* L. subsp. *cereale***

Landrace. 17562; 77 A-69; NSGC 8873. Collected in Portugal. Latitude 39 deg. 30' N. Longitude 8 deg. 0' W.

**PI 632595. *Secale cereale* L. subsp. *cereale***

Landrace. 17568; 77 A-81; NSGC 8874. Collected in Portugal. Latitude 39 deg. 30' N. Longitude 8 deg. 0' W.

**PI 632596. *Secale cereale* L. subsp. *cereale***

Landrace. 17570; 77 A-85; NSGC 8875. Collected in Portugal. Latitude 39 deg. 30' N. Longitude 8 deg. 0' W.

The following were developed by Pennington Seeds, Inc., United States. Received 01/30/2003.

**PI 632597 PVPO. *Poa pratensis* L.**

Cultivar. "BLUE RIDGE". PVP 200300080.

**PI 632598 PVPO. *Poa pratensis* L.**

Cultivar. "MALLARD". PVP 200300081.

The following were developed by Syngenta Seeds, Inc., United States. Received 01/30/2003.

**PI 632599 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "NP2315". PVP 200300083.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 01/30/2003.

**PI 632600 PVPO. *Glycine max* (L.) Merr.**

Cultivar. "90M90". PVP 200300084.

**PI 632601 PVPO. *Glycine max* (L.) Merr.**

Cultivar. "91M10". PVP 200300085.

**PI 632602 PVPO. *Glycine max* (L.) Merr.**

Cultivar. "91M40". PVP 200300086.

**PI 632603 PVPO. *Glycine max* (L.) Merr.**

Cultivar. "91M50". PVP 200300087.

**PI 632604 PVPO. *Glycine max* (L.) Merr.**

Cultivar. "91M90". PVP 200300088.

PI 632605 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M00". PVP 200300089.

PI 632606 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M10". PVP 200300090.

PI 632607 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M30". PVP 200300091.

PI 632608 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M31". PVP 200300092.

PI 632609 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M50". PVP 200300093.

PI 632610 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M70". PVP 200300094.

PI 632611 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M71". PVP 200300095.

PI 632612 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M72". PVP 200300096.

PI 632613 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "92M80". PVP 200300097.

PI 632614 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "93M40". PVP 200300098.

PI 632615 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "93M41". PVP 200300099.

PI 632616 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "93M60". PVP 200300100.

PI 632617 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "93M80". PVP 200300101.

PI 632618 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "93M90". PVP 200300102.

PI 632619 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "93M91". PVP 200300103.

PI 632620 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "94M40". PVP 200300104.

PI 632621 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "94M41". PVP 200300105.

PI 632622 PVPO. **Glycine max** (L.) Merr.  
Cultivar. "94M70". PVP 200300106.

The following were donated by USDA, ARS, Fruit Laboratory, Plant Germplasm Quarantine Office, Beltsville, Maryland 20705-2350, United States. Received

02/01/2001.

- PI 632623. *Malus domestica* Borkh.**  
Uncertain. Q28075C4; GMAL 4583; Brazil.
- PI 632624. *Malus domestica* Borkh.**  
Uncertain. Q280076B4; GMAL 4584; BR-1.
- PI 632625. *Malus domestica* Borkh.**  
Uncertain. Q28080B3; GMAL 4585; Paulista.
- PI 632626. *Malus sieversii* (Ledeb.) M. Roem.**  
Wild. KAZ 93-31-02; Q32662D; GMAL 4586; Ketmen Dessert.

The following were developed by A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 01/21/2003.

- PI 632627. *Poa pratensis* L.**  
Cultivar. "BlueMoon". CV-73. Pedigree - Originated as a highly apomictic, single-plant selection from hybrid cross number 89-1037, made in the field in Post Falls in July 1989. Pollen from Midnight was used to pollinate plants of Limousine. Tested in turf trials at Rutgers University and produced turf quality similar to NuGlade. In one 2-yr trial, ranked no. 7 in quality out of 100 cultivars. Seed production appears most similar to NuGlade. At maturity, panicles appear more brownish red than panicles of NuGlade, which appears more light purplish. Also differentiated from NuGlade by a shorter culm length, shorter internode length before the panicle, and a later reproductive maturity.

The following were collected by Stephanie Greene, USDA, ARS, National Temperate Forage Legume, Germplasm Resources Unit, Prosser, Washington 99350-9687, United States. Received 08/15/1995.

- PI 632628. *Trifolium thompsonii* C. V. Morton**  
Wild. W6 24282. Collected 07/22/1995 in Washington, United States. Latitude 47 deg. 38' 8'' N. Longitude 120 deg. 17' 33'' W. Elevation 3580 m. From Wenatchee: N on 97N for 17 miles, turn left onto road parallel to Entiat River. After 2 miles turn left, follow all the way up to where the road ends. Physical site: N-facing ridge top, 6-10% slope, 1/4 shade; Seasonally dry, burned in 1988, currently not grazed or logged; Loam soil. Distribution patchy although within patches, population abundance was abundant to frequent. Habit erect. Area sampled: 4000 sq.meters. Two flowers were sampled from each plant, 50 plants were sampled. Abundant along edge of forest north facing aspect, frequent on top or south of ridge. Dominant tree species: *Pinus ponderosa*, Dominant herb/grasses: bunch grass, *Achillea* sp., *Balsamorhiza* sp.

The following were donated by Miho Mihov, Institute for Wheat and Sunflower, "Dobroudja" 9520, General Toschevo, Tolbukhin 9520, Bulgaria. Received 02/27/1992.

**PI 632629. *Lens culinaris* Medik. subsp. *culinaris***

Cultivated. SH 90-5; W6 10049. Pedigree - Tadjikskaya 95/1121 Chile, F2 generation. Seeds were produced in the greenhouse.

**PI 632630. *Lens culinaris* Medik. subsp. *culinaris***

Cultivated. SH 87-22-2-5; W6 10057. Pedigree - Obr.chiflik 7/Naslada/50Gy, F5 generation. Seeds were produced in the field.

**PI 632631. *Lens culinaris* Medik. subsp. *culinaris***

Cultivated. SH 82-7-1-10; W6 10069. Pedigree - Laird/Tadjikskaya 95, F10 generation. Seeds were produced in the field.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/24/1992.

**PI 632632. *Lens culinaris* Medik. subsp. *culinaris***

Cultivated. B92-133; No. 45; W6 10817. Collected 07/02/1992 in France. De printan fonce. Not Found - RW.

The following were developed by University of Kentucky, Kentucky Agric. Expt Sta., Lexington, Kentucky, United States. Received 1976.

**PI 632633. *Citrullus lanatus* (Thunb.) Matsum. & Nakai**

Cultivar. "KENGARDEN". PVP 7300039.

The following were developed by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; D.C. Nielson, USDA, ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; S.A. Young, Utah State University, Plants, Soils, and Biometerology Department, Logan, Utah 84322-4820, United States; A. Phan, Ducks Unlimited-Canada, 1255 Clarence Ave., Winnipeg, Manitoba R3T 1T4, Canada. Received 01/24/2003.

**PI 632634. *Achnatherum hymenoides* (Roem. & Schult.) Barkworth**

Breeding. Ribstone; O-4. GP-87. Pedigree - Selected from T-918, a population collected in 1993 north of Taber, Alberta, Canada. Ten of 123 individual plants were selected for acute glume pair angle. A composite of seed from these 10 plants constitutes this accession. Intended area of use is the brown chernozem soil region of southeastern Alberta and adjacent areas of Saskatchewan and Montana, U.S. Acute glume pair angle facilitates seed retention in this species, which typically shatters badly. This material selected from T-918 exceeded nine other accessions from Alberta for this trait. T-918 also had high seed yield and acceptably low seed dormancy compared to other accessions. Seed through generation G-4 will be eligible for certification.

The following were developed by Robert Hunger, Oklahoma State University, Dept. of Plant Pathology, 110 NRC, Stillwater, Oklahoma 74078-9947, United States; Brett F. Carver, Oklahoma State University, Dept. of Plant & Soil Sciences, 368 Agriculture Hall North, Stillwater, Oklahoma 74078, United

States; E.L. Smith, Oklahoma State University, Oklahoma Agr. Exp. Sta., Stillwater, Oklahoma 74078, United States; David R. Porter, USDA, ARS, 1301 N. Western Road, Stillwater, Oklahoma 74075-2714, United States; Guihua Bai, Oklahoma State University, Dept. of Plant and Soil Science, 469 Ag. Hall, Stillwater, Oklahoma 74074, United States; Jeanmarie Verchot-Lubicz, Oklahoma State University, Dept. Entomology and Plant Pathology, NRC 127, Stillwater, Oklahoma 74078, United States; E.G. Krenzer, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; A.R. Klatt, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; A.C. Guenzi, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; B.C. Martin, Oklahoma State University, Dept. of Plant and Soil Sciences, Stillwater, Oklahoma 74078, United States; P. Rayas-Duarte, Oklahoma State University, Dept. of Biochemistry and Molecular Biology, Stillwater, Oklahoma 74078, United States. Received 01/23/2003.

**PI 632635. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "Ok102"; OK97508. CV-941. Pedigree - HBZ374C/Cimarron, in which HBZ374C=2174. Released 2002. Maturity intermediate, heading on the same day as 2174, 2 d later than Ok101 and 2.4 earlier than 2137. Semidwarf but shorter than most HRW cvs. currently in production, height at 77 cm is 8 cm shorter than 2174 and Ok101. Flag leaves at boot stage blue-green, erect, and twisted. Spikes middense, tapering, awned, white-glumed, and inclined to nodding at harvest-maturity. Juvenile plants semi-erect and show moderately late dormancy release during the late winter (similar to 2174 but later than Ok101 and Jagger). When measured at 15C in a growth chamber, coleoptile length (8.7 cm) is 2.1 cm longer than OK101, 0.4 cm longer than 2174, and 0.4 cm shorter than Jagger. Relatively high seed dormancy rating based on germination tests conducted at 4-12 wk post-harvest for seed stored at ambient temp. and germinated at 24/35C night/day temp. Seed dormancy is not expressed at 13C constant temp. Based on the single kernel characterization system, means and standard deviation for kernel size.

The following were donated by Hoang Minh Tam, Vietnam Agricultural Science Institute, Legumes Research and Development Center, Van Dien, Thanh Tri, Hanoi, Vietnam; Tran Dinh Long, Vietnam Agricultural Science Institute, Vietnam. Received 02/05/2003.

**PI 632636. *Glycine max* (L.) Merr.**

Cultivated. Pureline. BS. 38; SY 303001.

**PI 632636 A. *Glycine max* (L.) Merr.**

Cultivated. Pureline. BS. 38.

**PI 632636 B. *Glycine max* (L.) Merr.**

Cultivated. Pureline. (BS. 38).

**PI 632637. *Glycine max* (L.) Merr.**

Cultivated. Pureline. IS. 137; SY 303002.

**PI 632638. *Glycine max* (L.) Merr.**

Cultivated. Pureline. DT. 92; SY 303003.

**PI 632639. *Glycine max* (L.) Merr.**

Cultivated. Pureline. Hoang Mao; SY 303004.

**PI 632639 A. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. Hoang Mao.

**PI 632639 B. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (Hoang Mao).

**PI 632639 C. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (Hoang Mao).

**PI 632639 D. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (Hoang Mao).

**PI 632640. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. AK. 01; SY 303005.

**PI 632640 A. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. AK. 01.

**PI 632640 B. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (AK. 01).

**PI 632640 C. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (AK. 01).

**PI 632641. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. VG. 384; SY 303006.

**PI 632641 A. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. VG. 384.

**PI 632641 B. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (VG. 384).

**PI 632642. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. DN. 42; SY 303007.

**PI 632643. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. M. 103; SY 303008.

**PI 632644. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. CV D2-3; SY 303009.

**PI 632645. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. D2; SY 303010.

**PI 632646. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. Xanh Linh Duong; SY 303011.

**PI 632647. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. DT. 12; SY 303012.

**PI 632648. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. Cao Bang 1 x U8354; SY 303013.

**PI 632649. *Glycine max*** (L.) Merr.

Cultivated. Pureline. DT. 90; SY 303014.

**PI 632650. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. DT. 22; SY 303015.

**PI 632651. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. AK. 05; SY 303016.

**PI 632652. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. Trang An; SY 303017.

**PI 632653. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. Nam Vang; SY 303018.

**PI 632654. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. VG. 4763; SY 303019.

**PI 632655. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. Cao Bang 2 x U8356; SY 303020.

**PI 632656. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. MVK. 9; SY 303021.

**PI 632656 A. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. MVK. 9.

**PI 632656 B. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. (MVK.9).

**PI 632657. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. K. 30; SY 303022.

**PI 632658. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. V. 49; SY 303023.

**PI 632659. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. H. 1; SY 303024.

**PI 632660. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. H. 2; SY 303025.

**PI 632661. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. H. 3; SY 303026.

**PI 632661 A. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. H. 3.

**PI 632661 B. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. (H. 3).

**PI 632662. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. H. 4; SY 303027.

**PI 632663. *Glycine max* (L.) Merr.**  
Cultivated. Pureline. H. 5; SY 303028.

**PI 632663 A. *Glycine max* (L.) Merr.**

Cultivated. Pureline. H. 5.

**PI 632663 B. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (H. 5).

**PI 632664. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. H. 6; SY 303029.

**PI 632665. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. H. 7; SY 303030.

**PI 632666. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. H. 8; SY 303031.

**PI 632667. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. H. 9; SY 303032.

**PI 632668. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. H. 10; SY 303033.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Z. Kutlu. Donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/08/1989.

**PI 632669. *Vicia ervilia*** (L.) Willd.  
Wild. 010689-0304; W6 133. Collected 06/01/1989 in Turkey. Latitude 38 deg. 20' N. Longitude 39 deg. 44' E. Elevation 910 m. NE facing steep slope, hard limestone outcrops. Scattered *Crateagus* and *Quercus*. On road Elazig to Diyarbakir, 3km S of the Elazig Diyarbakir border, Degirmendere Kopru village, 12km to Ergani, Diyarbakir Province.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 09/15/1989.

**PI 632670. *Vicia montbretii*** Fisch. & C. A. Mey.  
Cultivated. 020689-0102; W6 1980. Collected 06/02/1989 in Turkey. Latitude 37 deg. 43' N. Longitude 38 deg. 35' E. Elevation 1110 m. Rocky fields on basalt plateau. Rocky fence rows on edges of fields, some recently tilled. 6km SW of Karacadag on road Diyarbakir to Siverek. Siverek Province. Plants to 0.3m tall, densely pubescent. Flowers white.

**PI 632671. *Vicia ervilia*** (L.) Willd.  
Cultivated. 080689-0101; W6 2053. Collected 06/08/1989 in Mardin, Turkey

. Latitude 37 deg. 28' N. Longitude 41 deg. 8' E. Elevation 1180 m.  
Cultivated field. N facing rocky limestone gentle slope with scrub oak  
trees. 28.5km E of Mardin or 5.8km W. Alicli Village on Mardin-Midyat  
road. Plants short to 20cm. Seeds brown.

**PI 632672. *Vicia ervilia* (L.) Willd.**

Cultivated. 090689-0201; W6 2068. Collected 06/09/1989 in Siirt, Turkey.  
Latitude 37 deg. 56' N. Longitude 42 deg. 18' E. Elevation 1200 m.  
Harvested in heaps in field for drying. Rocky limestone fields of  
scattered oak trees and scrub. 60.1km E of Siirt on road to Pervari, or  
4.6km E of road to Doganca.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State  
University, Regional Plant Introduction Station, Pullman, Washington  
99164-6402, United States. Received 01/15/1992.

**PI 632673. *Vicia lutea* L.**

Wild. W6 9534. Collected 05/12/1991 in Spain. Elevation 300 m. Sierra  
Morena Mountains N of Cordoba, at "Los Villares" Park.

The following were donated by O.W. Norvell, Stanford University, Palo Alto,  
California, United States. Received 01/01/1983.

**PI 632674. *Vicia articulata* Hornem.**

Uncertain. E8466; W6 11527. Collected in Ecuador.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State  
University, Regional Plant Introduction Station, Pullman, Washington  
99164-6402, United States. Received 08/01/1985.

**PI 632675. *Vicia* sp.**

Wild. 200785-04; W6 12097. Collected 07/20/1985 in Turkey. Elevation 900  
m. Edge of sunflower field in rocky soil near Yesiltepe village, 32km  
after Merzifon on road to Corum, Amasya Province. One plant with hairy  
pods.

**PI 632676. *Vicia* sp.**

Wild. 260785-46; W6 12101. Collected 07/26/1985 in Turkey. Elevation  
1150 m. 60km from Kutahya on road from Gediz, Kutahya Province.

**PI 632677. *Vicia sativa* L.**

Wild. W6 17209. Collected 06/24/1995 in Bulgaria. Elevation 100 m.  
Collected about 2 km on both sides of the village of Tsarkva on the side  
of the road which was forested, about 5-7 km from Albena, on the Black  
Sea.

The following were collected by Richard M. Hannan, USDA, ARS, Washington  
State University, Regional Plant Introduction Station, Pullman, Washington  
99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State  
University, Regional Plant Introduction Station, Pullman, Washington  
99164-6402, United States. Received 07/28/1996.

**PI 632678. *Vicia sativa* subsp. *nigra* (L.) Ehrh.**

Wild. B96-368; 417; W6 19505. Collected 07/1996 in Bulgaria. Received from the Institute of Plant Genetic Resources in Sadovo.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 632679. *Vicia amoena* Fisch.**

Wild. 98HV-43; W6 21424. Collected 09/1998 in Mongolia. Latitude 49 deg. 47' 4" N. Longitude 107 deg. 34' 10" E. Elevation 853 m. Huder Sum, Selenge Aimag, 5 km east of Huder. Grass-forb mountain meadow-adjacent to birch stands, dark soils. Associated vegetation: *Stipa sibirica*, *Stipa bicaulis*, *Elymus gmelinii*, *Vicia amoena*, *V. unijuga*, *Artemisia sericea*, *Galatella dahurica*, *Hieracium umbellatum*, *Sanguisorba officinalis*.

The following were donated by Manfred Fischer, Genbank OBST, Dresden-Pilnitz, Dorfplatz 2, Dresden, Saxony D-01326, Germany. Received 03/24/2000.

**PI 632680. *Prunus cerasus* L.**

Cultivar. "PAMJAT VAVILOVA"; Q 36988; GPRU 83; DPRU 2467.

Unknown source. Received 01/22/2003.

**PI 632681. *Prunus sargentii* Rehder**

Uncertain. Q 39507B; GPRU 104; *P. sachalinensis*.

Unknown source. Received 01/22/2003.

**PI 632682. *Prunus serrulata* var. *lannesiana* auct.**

Uncertain. Q 39510B; GPRU 105; *P. lannesiana*.

Unknown source. Received 01/22/2003.

**PI 632683. *Prunus x yedoensis* Matsum.**

Uncertain. Q 39513C; GPRU 106; *P. yedoyensis*.

Unknown source. Received 03/24/2000.

**PI 632684. *Prunus* hybrid**

Cultivar. "Pamjat vavilova x(*P. canescens* x *P. aviu*)"; Q 39659; GPRU 84; PV Hybrid # 1. Pedigree - 3 x hybrid between Pamjat Vavilova x (*P. canescens* x *P. avium*).

Unknown source. Received 09/08/2000.

**PI 632685. Prunus hybrid**

Cultivar. Q 39665; GPRU 90; VP 6.

The following were donated by Sergey Alexanian, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 08/30/2002.

**PI 632686. Prunus maackii** Rupr.

Cultivar. Q 40510; GPRU 102; P. maackii.

The following were developed by H.S. Musser, Unknown. Donated by Pennsylvania State University, Pennsylvania Agricultural Experiment Station, State College, Pennsylvania, United States. Received 1961.

**PI 632687. Agrostis stolonifera var. palustris** (Huds.) Farw.

Cultivar. "PENNCROSS"; NSL 4853. CV-1. Pedigree - Random crossing of 3 vegetatively propagated clonal strains: 10(37)4, 9(38)5 and 11(38)4. Significantly better in vigor and density, in disease tolerance, and rate of recovery in a 5-year test period. Wide range of climatic adaptation. Recommended for putting greens, not general lawns or athletic fields.

The following were developed by Virginia Tech Intellectual Properties, Inc., Virginia, United States. Received 02/26/2003.

**PI 632688 PVPO. Triticum aestivum** L.

Cultivar. "38206"; VA97w-206. PVP 200300112.

The following were developed by David L. Long, USDA-ARS, Cereal Rust Laboratory, University of Minnesota, St. Paul, Minnesota 55108, United States ; Sue Cambron, USDA-ARS, Department of Entomology, Smith Hall, West Lafayette, Indiana 47907, United States; Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Don V. McVey, USDA, ARS, University of Minnesota, Cereal Rust Laboratory, St. Paul, Minnesota 55105, United States; Lynda Witcher, USDA-ARS, North Carolina State University, Dept. of Plant Pathology, Raleigh, North Carolina 27695, United States; Arend E. Smid, Ridgetown College, University of Guelph, Ridgetown, Ontario N0P 2C0, Canada; Jeffrey P. Wilson, USDA, ARS, Crop Genetics & Breeding Research Unit, Georgia Coastal Plain Experiment Station, Tifton, Georgia 31793, United States; R.A. Corbin, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; J.C. Kenner, Eastern Virginia Agric. Research and Extension Center, Warsaw, Virginia 22572, United States; A.E. Gaines, USDA-ARS Soft Wheat Quality Lab., Wooster, Ohio 44691, United States; D.W. Dunaway, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; R.M. Pitman, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States. Received 02/26/2003.

**PI 632689. Triticum aestivum** L. **subsp. aestivum**

Cultivar. Pureline. "TRIBUTE"; VA98w-593. PVP 200300113; CV-958.  
Pedigree - VA92-51-39/AL870365. Released 2002. Head emergence is 122

days. Average plant height is 84 cm. Average straw strength (score=1.5 out of 10) is good. Average winter-survival (73%) is good. High grain volume weight (775 kg m<sup>-3</sup>). Juvenile plants exhibit prostrate growth habit. Coleoptiles are white. Plant color at booting is green and a waxy bloom is present on the stem and flag leaf sheath. Anther color is yellow. Spikes are tapering, middense, and awnleted. Glumes are short and midwide, and have rounded shoulders with obtuse beaks. Straw color is yellow. Kernels are red, soft, and ovate with a narrow and deep crease, rounded cheeks, and a medium non-collared brush. Phenol reaction is brown. Resistant (score=0.4, n=28 environments) to powdery mildew and possesses the Pm17 gene from Amigo in addition to other non-identified genes. Assessments of seedling reaction to differential races of *Puccinia triticina* and *Puccinia graminis* indicate that Tribute possesses genes Lr9 and Lr24 conferring resistance to leaf.

The following were developed by Virginia Tech Intellectual Properties, Inc., Virginia, United States. Received 02/26/2003.

**PI 632690 PVPO. *Triticum aestivum* L.**

Cultivar. "PEARL"; VA96w-403ws. PVP 200300114.

The following were developed by David L. Long, USDA-ARS, Cereal Rust Laboratory, University of Minnesota, St. Paul, Minnesota 55108, United States ; Sue Cambron, USDA-ARS, Department of Entomology, Smith Hall, West Lafayette, Indiana 47907, United States; Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Don V. McVey, USDA, ARS, University of Minnesota, Cereal Rust Laboratory, St. Paul, Minnesota 55105, United States; Lynda Whitcher, USDA-ARS, North Carolina State University, Dept. of Plant Pathology, Raleigh, North Carolina 27695, United States; Jeffrey P. Wilson, USDA, ARS, Crop Genetics & Breeding Research Unit, Georgia Coastal Plain Experiment Station, Tifton, Georgia 31793, United States; T.R. Randall, Eastern Virginia Agric. Res. and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; R.A. Corbin, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; J.C. Kenner, Eastern Virginia Agric. Research and Extension Center, Warsaw, Virginia 22572, United States; A.E. Gaines, USDA-ARS Soft Wheat Quality Lab., Wooster, Ohio 44691, United States; D.W. Dunaway, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States; R.M. Pitman, Eastern Virginia Agric. Research and Extension Center, Virginia Polytechnic Inst. and State Univ., Warsaw, Virginia 22572, United States. Received 02/26/2003.

**PI 632691. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "McCORMICK"; VA98w-591. PVP 200300115; CV-959. Pedigree - VA92-51-39/AL870365. Released 2002. Head emergence is 123 days. Average plant height is 79 cm. Average straw strength (0.9 out of 10) is good. Average winter-survival (73%) is good. High grain volume weight (765 kg m<sup>-3</sup>). Juvenile plants exhibit a prostrate growth habit. Coleoptiles are red. Plant color at booting is green and a waxy bloom is present on the stem and flag leaf sheath. Anther color is yellow. Spikes are tapering, middense, and awnleted. Glumes are short and midwide, and have rounded shoulders with acute beaks. Straw color near maturity is reddish purple. Kernels are red, soft and ovate with a narrow and

shallow crease, rounded cheeks, and short non-collared brush. Phenol reaction is brown. Resistant (score = 0.4 out of 9, n=28 environments) to powdery mildew and possesses the Pm17 gene from Amigo in addition to other non-identified genes. Assessments of seedling reaction to differential races of *Puccinia triticina* and *Puccinia graminis*, indicate that McCornick possesses gene Lr24 conferring.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 02/26/2003.

**PI 632692 PVPO. Phaseolus vulgaris L.**  
Cultivar. "SLENDERPACK". PVP 200300116.

The following were developed by Monsanto Technology LLC, United States. Received 02/26/2003.

**PI 632693 PVPO. Glycine max (L.) Merr.**  
Cultivar. "SN83541". PVP 200300117.

**PI 632694 PVPO. Glycine max (L.) Merr.**  
Cultivar. "SN74232". PVP 200300118.

**PI 632695 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0103321". PVP 200300119.

**PI 632696 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0025340". PVP 200300120.

**PI 632697 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0033405". PVP 200300121.

**PI 632698 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0053381". PVP 200300122.

**PI 632699 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0006245". PVP 200300123.

**PI 632700 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0040887". PVP 200300124.

**PI 632701 PVPO. Glycine max (L.) Merr.**  
Cultivar. "SE84950". PVP 200300125.

**PI 632702 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0011824". PVP 200300126.

**PI 632703 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0151167". PVP 200300127.

**PI 632704 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0096004". PVP 200300128.

**PI 632705 PVPO. Glycine max (L.) Merr.**  
Cultivar. "0096838". PVP 200300129.

**PI 632706 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "0049431". PVP 200300130.

**PI 632707 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "0203314". PVP 200300131.

The following were developed by Carl A. Griffey, Virginia Polytechnic Institute, & State University, Dept. of Crop & Soil Env. Sciences, Blacksburg, Virginia 24061-0404, United States. Received 02/26/2003.

**PI 632708. *Hordeum vulgare* L. subsp. *vulgare***  
Cultivar. Pureline. "PRICE"; VA96-44-321. PVP 200300132; CV-315.  
Pedigree - Callao / SC830366. Released 2002. Midseason, short-stature, hulled winter feed barley. Juvenile plants exhibit semi-prostrate growth habit in early spring, flag leaves glossy and upright at booting, leaf sheaths waxy and anthocyanin is not present in leaves or stems. Stems comprised of five nodes, exertion moderate, collar closed to V-shape, and neck is straight. Spikes erect, strap, and slightly waxy with pronounced overlapping lateral kernels. Rachis covered with hairs. Glumes short, completely covered with long hairs, and their awns rough and equal to the glumes in length. Lemmas hairy, have a depressed base, and their awns short and rough. Rachilla hairs long. Seed hulled, short to midlong, semiwrinkled, with colorless aleurone, and lacking hairs on the ventral furrow. On average, head emergence is 111 days and 2-3 days later than Callao. Average plant height (86 cm) is 4 cm taller than Callao. On the basis of Belgium lodging score (0.2=no lodging, 10=completely lodged) straw strength (1.0) excellent in.

The following were developed by D&PL Technology Holding Corp., United States. Received 02/26/2003.

**PI 632709 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "DP 5634 RR". PVP 200300136.

The following were developed by Edward J. Souza, University of Idaho, Aberdeen Research & Extension Center, P.O. Box 870, Aberdeen, Idaho 83210, United States. Received 01/30/2003.

**PI 632710. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. IDO545. Pedigree - IDO417 / ND850522. Hard red spring wheat adapted to the Pacific Northwest of the U.S. Adapted to both rainfed and irrigated production. Excellent bread quality. Adult plant resistance to stripe rust. Resistant to Hessian fly population of the Pacific Northwest, carrying unidentified resistance factors. White, chaffed, awned, and full stature, with unpigmented coleoptile and anthers.

**PI 632711. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. IDO562. Pedigree - IDO444 / Promontory. Hard red winter wheat adapted to the Pacific Northwest of the U.S. Best adapted to rainfed production. Excellent bread quality. Adult plant resistance to stripe rust. Resistant to dwarf bunt and tolerant of snow mold. Bronze chaffed, awned, and semi-dwarf with unpigmented coleoptile and anthers.

**PI 632712. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "JEROME"; IDO566. PVP 200400097; CV-964. Pedigree - Sunstar II/Westbred 926. Released 2004. Hard red spring wheat adapted to the Pacific Northwest of the U.S. Adapted to both rainfed and irrigated production. Excellent bread quality. Adult plant resistance to stripe rust. Resistant to Hessian fly, carrying the H3 gene and an additional resistance factor. White chaffed, awned, and semi-dwarf with unpigmented coleoptile and anthers.

**PI 632713. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. IDO586. Pedigree - IDO470\*2 / WGRC20. Hard white spring wheat adapted to rainfed production in the Pacific Northwest of the U.S. Low levels of polyphenol oxidase but is relatively weak gluten for a bread wheat. Resistant to present races of stripe rust and leaf rust in the Pacific Northwest. Carries the H25 gene, derived from WGRC20, for resistance to the Hessian fly.

The following were developed by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 01/05/1999.

**PI 632714. *Phaseolus vulgaris* L.**

Genetic. Genetic Marker 69; W6 21061. Pedigree - BC2 to 5-593 from 98-170. [cs]; chlorotic stem; this mutant does not reproduce well under field conditions of strong sunlight, although vegetatively vigorous, but has completely normal reproductive vigor under glass.

The following were donated by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 01/05/1999.

**PI 632715. *Phaseolus vulgaris* L.**

Genetic. G07639; Genetic Marker 70; Early Giant; W6 21062. Expresses the virgata pattern of partly colored seed coat - a very rare type of partly colored phenotype; same line, cv. EARLY GIANT, used by H. Lamprecht (1940, Zur Genetik von *Phaseolus vulgaris*. XVI. Weitere Beitrage zur Vererbung der Teilfarbigkeit. Hereditas 26:277-291.

**PI 632716. *Phaseolus vulgaris* L.**

Cultivated. Genetic Marker 71; Yellow Wax #8; W6 21063. Florida breeding line with antibiosis type resistance to the two-spotted spider mite (*Tetranychus urticae* Kopch). Data supporting the antibiosis hypothesis is published in: Gail Childs, S.L. Poe, and M.J. Bassett. 1976. Response of the two-spotted spider mite to *Phaseolus* cultivars. Proc. Fla. State Hort. 89:149-150.

The following were developed by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 11/01/1999.

**PI 632717. *Phaseolus vulgaris* L.**

Genetic. Genetic Marker 72; W6 22000. Pedigree - BC3 to 5-593 (sellatus with circumlineatus) from 98-164. { [t] [cl] [z\*sel] [G] [b] [v] };

"sellatus" pattern of partly colored seed coat in yellow-brown with an orange precipitation line in the grooved surface (circumlineatus) at the juncture of white and yellow-brown pattern.

The following were donated by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 11/01/1999.

**PI 632718. Phaseolus vulgaris L.**

Genetic. Genetic Marker 73; W6 22001. Pedigree - BC3 to 5-593 (marginata) from 96-245. { [t] [j] }; marginata pattern of partly colored seed coat.

**PI 632719. Phaseolus vulgaris L.**

Genetic. Genetic Marker 74; W6 22002. Pedigree - BC3 to 5-593 (white seed) from 98-63. { [t] [z] [j] }; white flower and white seed coat.

The following were developed by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 11/01/1999.

**PI 632720. Phaseolus vulgaris L.**

Genetic. Genetic Marker 75; W6 22003. Pedigree - BC3 to 5-593 (Anasazi) from 95-100. { [t] [Z] [bip\*ana] }; Anasazi pattern of partly colored seed coat in black/white, where the circumlineatus gene [cl] is carried cryptically by 5-593 & DOES NOT express with [V].

**PI 632721. Phaseolus vulgaris L.**

Genetic. Genetic Marker 76; W6 22004. Pedigree - BC3 to 5-593 (virgarcus with circumlineatus) from 97-184. { [t] [cl] [z] [v] }; virgarcus pattern of partly colored seed coat in mineral-brown with an orange precipitation line in the grooved surface (circumlineatus) at the juncture of the white & mineral brown pattern.

**PI 632722. Phaseolus vulgaris L.**

Genetic. Genetic Marker 77; W6 22005. Pedigree - BC 3 to 5-593 (virgarcus with circumlineatus) from 98-166. } [t] [cl] [z] [g] [b] [v] }; virgarcus pattern of partly colored seed coat in pale greenish-yellow with an orange precipitation line in the grooved surface (circumlineatus) at the juncture of the white and pale greenish-yellow pattern.

**PI 632723. Phaseolus vulgaris L.**

Genetic. Genetic Marker 78; W6 22006. Pedigree - BC3 to 5-593 from 98-2. { [j] [g] [b] [v] }; grayish violet seed coat that is highly variable seed to seed with a near-white corona.

The following were donated by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States; Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 11/01/1999.

**PI 632724. Phaseolus vulgaris L.**

Genetic. "Thuringia"; Genetic Marker 79; W6 22007. Pureline; THURINGIA, classic genetic stock of Fritz Schreiber (1934 & 1940) for work into the source of the [L] = "limiter" gene - the work included interactions of the [Z] & [L] loci.

The following were donated by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 11/01/1999.

**PI 632725. Phaseolus vulgaris L.**

Genetic. "Wagenaar"; Genetic Marker 80; W6 22008. Developed in Netherlands. Pureline; cv. WAGENAAR, used by R. Prakken (1972) in a 4-parent diallel to investigate red seed coat color genetics. Bassett & McClean (unpublished) have discovered the strong greenish-yellow seed coat color of this stock - which DOES NOT develop in Netherlands, but DOES in Florida & N. Dakota - is controlled by a new locus for seed coat color.

The following were developed by Mark J. Bassett, University of Florida, Department of Vegetable Crops, 1253 Fifield Hall, Gainesville, Florida 32611, United States. Received 01/22/2001.

**PI 632726. Phaseolus vulgaris L.**

Genetic. Genetic Marker 81; W6 23341. Pedigree - BC3 to 5-593 from 97-46 . { [ ? R ] v }; dark seal-brown, nearly black; demonstration stock for the dominant red [R] gene in different seed coat color genotypes.

**PI 632727. Phaseolus vulgaris L.**

Genetic. Genetic Marker 82; W6 23342. Pedigree - BC3 to 5-593 from 00-294. { [ ? R ] [ j ] [ b ] [ v ] }; oxblood red with margo pattern (loss of color in the corona); demonstration stock for the dominant red [R] gene in different seed coat color genotypes.

**PI 632728. Phaseolus vulgaris L.**

Genetic. Genetic Marker 83; W6 23343. Pedigree - BC3 to 5-593 from 00-294. { [ ? R ] [ z ] [ j ] [ b ] [ v ] }; oxblood red with loss of color (nearly white) in the corona & hilum ring; demonstration stock for the dominant red [R] gene in different seed coat color genotypes.

**PI 632729. Phaseolus vulgaris L.**

Genetic. Genetic Marker 84; W6 23344. Pedigree - BC3 to 5-593 from 00-292. { [ ? R ] [ g ] [ B ] [ v ] }; dark bluish-purple; demonstration stock for the dominant red [R] gene in different seed coat color genotypes.

**PI 632730. Phaseolus vulgaris L.**

Genetic. Genetic Marker 85; W6 23345. Pedigree - BC3 to 5-593 from 00-293. { [ ? R ] [ g ] [ b ] [ v ] }; light oxblood red; demonstration stock for the dominant red [R] gene in different seed coat color genotypes.

**PI 632731. Phaseolus vulgaris L.**

Genetic. Genetic Marker 86; W6 23346. Pedigree - BC3 to 5-593 from 94-371. { [ c\*u ] [ Prp\*i ] }; advanced color gene combination with base [ d j ]; whole plant syndrome of anthocyanin expression controlled at the complex [C] locus, "intense" purple flowers & flower buds, purple expression in pods, stems, petioles & leaves.

- PI 632732. *Phaseolus vulgaris* L.**  
Genetic. Genetic Marker 87; W6 23347. Pedigree - BC3 to 5-593 from 00-634. { [z] [j] [g] [v] }; advanced color gene combination with bas [d j]; greenish gray-brown with a highly variable violet wash on some seed & loss of color in corona & hilum ring.
- PI 632733. *Phaseolus vulgaris* L.**  
Genetic. Genetic Marker 88; W6 23348. Pedigree - BC3 to 5-593 from 99-81 . { [z] [j] [g] [b] [v] }; advanced color gene combinations with base [d j]; schamois with a highly variable pale violet wash on some seed & loss of color in corona & hilum ring.
- PI 632734. *Phaseolus vulgaris* L.**  
Genetic. Genetic Marker 89; W6 23349. Pedigree - BC3 to 5-593 (virgarcus with circumlineatus) from 00-336. { [t] [cl] [z] [b] [v] }; virgarcus pattern of partly colored seed coat in yellow-brown with an orange precipitation line in the grooved surface (circumlineatus) at the juncture of white & yellow-brown pattern; completion of basic color series: mineral-brown [v], yellow-brown [b v], schamois [g b v], created for future research.
- PI 632735. *Phaseolus vulgaris* L.**  
Genetic. Genetic Marker 90; W6 23350. Pedigree - BC3 to 5-593 (Anabip) from 97-307. { [t] [z] [bip\*ana] }; Anasazi pattern of partly colored seed coat (sometimes unstable), due to interaction of [z] and [bip\*ana] genes.
- PI 632736. *Phaseolus vulgaris* L.**  
Genetic. Genetic Marker 91; W6 23351. Pedigree - BC3 to 5-593 from 97-52 . { [t] [p\*mic] }; formerly [stp\*mic]; strongly expressed white micropyle stripe & fibula arcs; the interaction of [t] with [p\*mic] making the micropyle stripe broader & longer than with [p\*mic] alone.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

- PI 632737. *Brassica napus* var. *napobrassica* (L.) Rchb.**  
Cultivar. "Magres Pajbjerg"; CR 742/91; Ames 22965.
- PI 632738. *Brassica napus* var. *napobrassica* (L.) Rchb.**  
Cultivar. "Niko"; CR 795/90a; Ames 22966.
- PI 632739. *Brassica napus* var. *napobrassica* (L.) Rchb.**  
Cultivar. "Oana"; CR 809/93; Ames 22967.
- PI 632740. *Brassica napus* var. *napobrassica* (L.) Rchb.**  
Cultivar. "Ostgota"; CR 833/90; Ames 22968.
- PI 632741. *Brassica napus* var. *napobrassica* (L.) Rchb.**  
Cultivar. "Pastewna Zolta"; CR 1868/90; Ames 22969.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben,

Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 632742. *Brassica napus* var. *napobrassica* (L.) Rchb.**

Cultivated. BRA 1042/95; K 5129; Ames 23088. Collected 1978 in Krosno, Poland. Latitude 49 deg. 37' N. Longitude 22 deg. 4' E. Bazanowka near Jacmierz, northwest of Sanok.

**PI 632743. *Brassica napus* var. *napobrassica* (L.) Rchb.**

Cultivated. BRA 1167/93; K 6928; Ames 23092. Collected 10/07/1985 in Sicily, Italy. Latitude 38 deg. 0' N. Longitude 13 deg. 17' E. Piana degli Albanesi. Collected from harvested seed.

**PI 632744. *Brassica napus* var. *napobrassica* (L.) Rchb.**

Cultivated. BRA 1222/87; K 6817; Ames 23097. Collected 09/21/1985 in Georgia. Cichisdzvari, Rayon Borzomi, South Georgia. Kohlrabi. Local type. Seed stock from a teachers garden.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland; Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 01/04/2000.

**PI 632745. *Brassica napus* var. *napobrassica* (L.) Rchb.**

Cultivated. P021; POL 176016; Ames 25926. Collected 07/13/1999 in Lomza, Poland. Latitude 52 deg. 41' 39'' N. Longitude 22 deg. 33' 41'' E. Bujenka 30.

The following were developed by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States; Paul R. White, Iowa State University, Dept. of Agronomy, Ames, Iowa 50011, United States; Kendall R. Lamkey, USDA, ARS, Iowa State University, 1555 Agronomy, Ames, Iowa 50011, United States. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 02/13/2003.

**PI 632746. *Zea mays* L. subsp. *mays***

Breeding. Inbred. B116; Ames 26979. PL-311. Pedigree - (B97 x B99)-047-1-1-1-1-1-1. Vigorous inbred line developed from the F2 population developed from a cross of B97 and B99. Flowers about 80 days after planting and would be classified for the AES 700-800 Maturity Group. Hybrids that include B116 as one parent have exhibited consistently high grain yield in trials conducted in Iowa and the North Central Region. Yellow, dent kernels are produced on large ears with pink-to-red cobs. Yield of B116 per se is greater than for most parental inbreds. Above average tolerance to 1st and 2nd generation European corn borers (*Ostrinia nubilalis* Hubner), northern corn leaf blight (*Exserohilum turcicum* Pass.), and gray leaf spot (*Cercospora zeae-maydis* Tehron and Daniels).

The following were developed by Tadesse Mebrahtu, Virginia State University,

P.O. Box 9061, Petersburg, Virginia 23806, United States; Mark E. Kraemer, Virginia State University, P.O. Box 9061, Petersburg, Virginia 23806, United States. Received 02/21/2003.

**PI 632747. *Glycine max* (L.) Merr.**

Breeding. VS94-11. GP-297. Pedigree - L76-0049 x Essex. Maturity group V, white flowers, gray pubescence, yellow seed coat and brown hila. Plant height 79 cm with a seed size of 11.6 g. Seed contains 39.0% protein, 18.3% oil and has total isoflavone content of 621.41 ug/g which is 136% and 12% higher than PI 399055 (262.87 ug/g) and L76 0049 (550.85 ug/g), respectively. On full season planting in Virginia during 1995 and 1996 growing seasons, the average maturity date was October 25 with seed yield of 2460 kg ha<sup>-1</sup>. Entered into the Mid-Atlantic soybean cooperative yield test during 1994 and produced seed yield equal to the standard checks Brim and Twiggs.

**PI 632748. *Glycine max* (L.) Merr.**

Breeding. VS94-12. GP-298. Pedigree - L76-0049 x Essex. Maturity Group VI, white flowers, gray pubescence, yellow seed coat and brown hila. Height of 68 cm with seed size of 12.2 g. Seed contains 37.0% protein, 19.2% oil and has total isoflavone value of 667.35 ug/g which is 154% and 21% higher than PI 399055 and L76-0049, respectively. On full season planting in Virginia during 1995 and 1996 growing seasons, the average maturity date was November 1 and has seed yield of 3438 kg ha<sup>-1</sup>. Entered into Mid-Atlantic soybean cooperative yield test during 1994 and produced seed yield equal to the standard checks Brim and Twiggs.

**PI 632749. *Glycine max* (L.) Merr.**

Breeding. VS94-21. GP-299. Pedigree - York x PI 416937. Maturity Group VI, purple flowers, gray pubescence, yellow seed coat, and brown hila. Height 74 cm and 14.2 g seeds size. Seed contains 37.7% protein and 15.8% oil. On full season planting in Virginia during 1995 and 1996 growing seasons, the average maturity date was November 1 and had seed yield of 3438 kg ha<sup>-1</sup>. Entered into Mid-Atlantic cooperative yield test during 1994 and produced seed yield equal to the standard checks Brim and Twiggs.

The following were developed by Robert T. Lewellen, USDA, ARS, Crop Improvement and Protection Research, 1639 E. Alisal St., Salinas, California 93905, United States; J. Mitchell McGrath, USDA, ARS, Department of Crop and Soil Science, Michigan State University, East Lansing, Michigan 48824-1325, United States. Received 02/24/2003.

**PI 632750. *Beta vulgaris* L.**

Breeding. EL0204. GP-238. Pedigree - Complex involving five smooth-root developmental populations crossed with rhizomania resistant C80 (PI 593672). Multigerm and self-sterile with 95% red hypocotyls. Good sugar yield performance both under rhizomania disease conditions and non-diseased conditions. Smooth-root score equivalent to the highly smooth-root releases SR87 (PI 607899), SR93 (PI 598075), and SR95 (PI 603947).

The following were donated by Richard W. Robinson, Cornell University, New York State Agric. Exp. Station, Department of Horticultural Sciences, Geneva, New York 14456, United States. Received 05/11/1998.

**PI 632751. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
Wild. 3750; Grif 14113. Collected in Namibia.

The following were donated by Doug Chapman, Alabama Cooperative Extension System, 1109 W. Market Street, Suite A, Athens, Alabama 35611, United States. Received 10/15/2001.

**PI 632752. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
Wild. Grif 15005.

The following were donated by Curtis Sylvester Showell, 13318 Muskrattown Road, Delaware & Road Number 96A Maryland Line, Bishopville, Maryland 21813, United States. Received 01/1988.

**PI 632753. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai  
Cultivar. STRIPED HOPI.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/24/1992.

**PI 632754. *Citrullus lanatus*** (Thunb.) Matsum. & Nakai **var. lanatus**  
Landrace. B92-106; W6 10756; Grif 1553. Collected 07/02/1992 in Bulgaria . Institute of Wheat and Sunflower (IWS). Watermelon. Local variety.

The following were donated by B & T World Seeds, Paguignan, Olonzac, France. Received 05/28/2002.

**PI 632755. *Citrullus rehmii*** De Winter  
Uncertain. 86308; Grif 15028. Small seed, distinct foliar and floral morphology per the original description of De Winter. Close to type.

The following were collected by John L. Schwendiman, USDA-SCS, Plant Materials Center, Pullman, Washington, United States. Developed by USDA, NRCS, Pullman Plant Materials Center, P.O. Box 646211, Pullman, Washington 99164-6211, United States. Donated by Mark E. Stannard, National Resources Conservation Service, Washington State University, 211 Hulbert Hall, Pullman, Washington 99164-6211, United States. Received 02/27/2003.

**PI 632756. *Elymus lanceolatus*** (Scribn. & J. G. Sm.) Gould **subsp. lanceolatus**

Cultivar. P-1822; "Schwendimar"; 9006633; W6 24285. Collected 1934 in Oregon, United States. On wind blown sands along the banks of the Columbia River east of The Dallas, Oregon. Rhizomatous, cool season, perennial grass. Foliage and culms are bluish and glaucous with only partial pubescence on the lemma. Spikes are long and compact with alternating spikelets on the rachis. Roots are fibrous, dense and shallow with a few that extend beyond two feet (0.6m). Similar in appearance to slender wheatgrass and western wheatgrass. It is

outcrossed and its' chromosome number is  $2n=28$ . 'Schwendimar' seed germinates in cool soils and develops rapidly. Rhizome growth may not occur the first growing season. If flowers in June and goes dormant with the onset of summer drought. Little regrowth occurs in the fall with the increased precipitation. Growth resumes early in spring and rhizome development increases.<a href="http://www.ars-grin.gov/npgs/images/w6/narrative/PI632756.htm">For more information click here</a>.

The following were donated by N. Quat Ng, International Institute of Tropical Agriculture, Oyo Road, PMB 5320, Ibadan, Oyo, Nigeria. Received 09/28/1992.

- PI 632757. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 11987; TB79-924; Grif 12076. Collected in Sudan.
- PI 632758. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13724; NVU 16; Grif 12083. Collected in Togo.
- PI 632759. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13725; NVU 18; Grif 12084. Collected in Togo.
- PI 632760. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13726; NVU 20; Grif 12085. Collected in Togo.
- PI 632761. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13728; NVU 24; Grif 12087. Collected in Togo.
- PI 632762. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13729; NVU 25; Grif 12088. Collected in Togo.
- PI 632763. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13731; NVU 30; Grif 12090. Collected in Togo.
- PI 632764. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13734; NVU 41; Grif 12093. Collected in Togo.
- PI 632765. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13735; NVU 44; Grif 12094. Collected in Togo.
- PI 632766. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13737; NVU 50; Grif 12096. Collected in Togo.
- PI 632767. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13738; NVU 51; Grif 12097. Collected in Togo.
- PI 632768. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13739; NVU 53; Grif 12098. Collected in Togo.
- PI 632769. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13741; NVU 58; Grif 12100. Collected in Togo.
- PI 632770. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13742; NVU 62; Grif 12101. Collected in Togo.
- PI 632771. *Vigna unguiculata* (L.) Walp. subsp. unguiculata**  
Uncertain. TVu 13743; NVU 63A; Grif 12102. Collected in Togo.

- PI 632772. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13744; ZVU 338; Grif 12103. Collected in Togo.
- PI 632773. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13745; CuCx 24-015E; Grif 12104. Collected in Brazil.
- PI 632774. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13746; CuCx 85-6D; Grif 12105. Collected in Brazil.
- PI 632775. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13753; CuCx 161-01E; Grif 12112. Collected in Brazil.
- PI 632776. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13759; CuCx 165-7E; Grif 12118. Collected in Brazil.
- PI 632777. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13761; CuCx 167-6E; Grif 12120. Collected in Brazil.
- PI 632778. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13764; CuCx 164-2F; Grif 12123. Collected in Brazil.
- PI 632779. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13765; CuCx 171-7E; Grif 12124. Collected in Brazil.
- PI 632780. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13771; CuCx 171-23E; Grif 12130. Collected in Brazil.
- PI 632781. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13773; CuCx 171-29E; Grif 12132. Collected in Brazil.
- PI 632782. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13774; CuCx 171-31E; Grif 12133. Collected in Brazil.
- PI 632783. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13775; CuCx 171-32E; Grif 12134. Collected in Brazil.
- PI 632784. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13776; CuCx 176-4F; Grif 12135. Collected in Brazil.
- PI 632785. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13777; CuCx 176-9F; Grif 12136. Collected in Brazil.
- PI 632786. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13778; CuCx 177-8W; Grif 12137. Collected in Brazil.
- PI 632787. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13779; CuCx 177-13-1E; Grif 12138. Collected in Brazil.
- PI 632788. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13780; CuCx 177-12E; Grif 12139. Collected in Brazil.
- PI 632789. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13781; CuCx 180-3F; Grif 12140. Collected in Brazil.
- PI 632790. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13782; CuCx 187-22D-1; Grif 12141. Collected in Brazil.

- PI 632791. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13783; CuCx 188-13-1; Grif 12142. Collected in Brazil.
- PI 632792. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13784; CuCx 189-05g; Grif 12143. Collected in Brazil.
- PI 632793. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13785; CuCx 190-1E; Grif 12144. Collected in Brazil.
- PI 632794. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13786; CuCx 190-2E; Grif 12145. Collected in Brazil.
- PI 632795. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13787; CuCx 190-3E; Grif 12146. Collected in Brazil.
- PI 632796. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13789; CuCx 249-4F; Grif 12148. Collected in Brazil.
- PI 632797. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13790; CuCx 249-41F; Grif 12149. Collected in Brazil.
- PI 632798. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13791; CuCx 249-45F; Grif 12150. Collected in Brazil.
- PI 632799. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13792; CuCx 249-53F; Grif 12151. Collected in Brazil.
- PI 632800. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13793; CuCx 251-3E; Grif 12152. Collected in Brazil.
- PI 632801. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13794; CuCx 251-4; Grif 12153. Collected in Brazil.
- PI 632802. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13795; CuCx 251-11E; Grif 12154. Collected in Brazil.
- PI 632803. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13797; CuCx 251-38E; Grif 12155. Collected in Brazil.
- PI 632804. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13798; CuCx 251-40E; Grif 12156. Collected in Brazil.
- PI 632805. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13799; CuCx 252-3E; Grif 12157. Collected in Brazil.
- PI 632806. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13800; CuCx 252-5E; Grif 12158. Collected in Brazil.
- PI 632807. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13801; CuCx 252-6E; Grif 12159. Collected in Brazil.
- PI 632808. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13802; CuCx 252-9E; Grif 12160. Collected in Brazil.
- PI 632809. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13804; CuCx 279-9E; Grif 12162. Collected in Brazil.

- PI 632810. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13805; CuCx 284-4E; Grif 12163. Collected in Brazil.
- PI 632811. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13806; CuCx 284-8E; Grif 12164. Collected in Brazil.
- PI 632812. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13808; CuCx 284-55F; Grif 12165. Collected in Brazil.
- PI 632813. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13809; CuCx 332-10F; Grif 12166. Collected in Brazil.
- PI 632814. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13810; CuCx 1413-3; Grif 12167. Collected in Brazil.
- PI 632815. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13812; CnCx 24-015E; Grif 12168. Collected in Brazil.
- PI 632816. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13813; CnCx 77-1E; Grif 12169. Collected in Brazil.
- PI 632817. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13814; CnCx 0434; Grif 12170. Collected in Brazil.
- PI 632818. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13821; SJBA 1; Grif 12176. Collected in Sri Lanka.
- PI 632819. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13822; SJBA 2; Grif 12177. Collected in Sri Lanka.
- PI 632820. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13954; K105; Grif 12248. Collected in Russian Federation.
- PI 632821. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13955; K150; Grif 12249. Collected in Russian Federation.
- PI 632822. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13956; K250; Grif 12250. Collected in Russian Federation.
- PI 632823. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13957; K267; Grif 12251. Collected in Russian Federation.
- PI 632824. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13958; K579; Grif 12252. Collected in Russian Federation.
- PI 632825. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13959; K580; Grif 12253. Collected in Russian Federation.
- PI 632826. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13961; K661; Grif 12254. Collected in Russian Federation.
- PI 632827. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13962; K705; Grif 12255. Collected in Russian Federation.
- PI 632828. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVu 13964; K1073; Grif 12256. Collected in Russian Federation.

- .  
PI 632829. *Vigna unguiculata* subsp. *sesquipedalis* (L.) Verdc.  
Uncertain. TVu 13965; K1090; Grif 12257. Collected in Russian Federation  
.
- PI 632830. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13966; K1103; Grif 12258. Collected in Russian Federation  
.
- PI 632831. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13969; K1159; Grif 12259. Collected in Russian Federation  
.
- PI 632832. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13971; K1199; Grif 12260. Collected in Russian Federation  
.
- PI 632833. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13972; K1200; Grif 12261. Collected in Russian Federation  
.
- PI 632834. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13974; K1212; Grif 12262. Collected in Russian Federation  
.
- PI 632835. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13975; K1220; Grif 12263. Collected in Russian Federation  
.
- PI 632836. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13979; K1311; Grif 12264. Collected in Russian Federation  
.
- PI 632837. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13995; L 1101; Grif 12273. Collected in Zambia.
- PI 632838. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13996; L 1325; Grif 12274. Collected in Zambia.
- PI 632839. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 13998; L 2017; Grif 12275. Collected in Zambia.
- PI 632840. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 14000; BR6 Senano; Grif 12276. Collected in Zambia.
- PI 632841. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 14001; BR7 Pamaila; Grif 12277. Collected in Zambia.
- PI 632842. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 14002; BR5 Canavete; Grif 12278. Collected in Zambia.
- PI 632843. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 14003; BR4 Rio Branco; Grif 12279. Collected in Zambia.
- PI 632844. *Vigna unguiculata* (L.) Walp. subsp. *unguiculata*  
Uncertain. TVu 14005; BR1 Poty; Grif 12280. Collected in Zambia.

The following were donated by B.B. Singh, International Institute of Tropical Agriculture, Grain Legume Improvement Program, Ibadan, Oyo, Nigeria. Received 05/27/1998.

- PI 632845. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. TVx-3236; Grif 14279. .
- PI 632846. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT87D-885; Grif 14280. .
- PI 632847. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT90K-363; Grif 14282. .
- PI 632848. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT90K-277-2; Grif 14283. .
- PI 632849. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT86D-721; Grif 14284. .
- PI 632850. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT90K-76; Grif 14285. .
- PI 632851. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT90K-372-1-2; Grif 14287. .
- PI 632852. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT88D-867-11; Grif 14288. .
- PI 632853. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT90K-82-2; Grif 14289. .
- PI 632854. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT81D-1010; Grif 14290. .
- PI 632855. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT86D-716; Grif 14291. .
- PI 632856. *Vigna unguiculata* (L.) Walp. **subsp. unguiculata**  
Uncertain. IT85F-2805; Grif 14292. .

The following were developed by Craig F. Morris, USDA-ARS, Western Wheat Quality Lab., E-202 FSHN Facility East, Pullman, Washington 99164-6394, United States; Victor L. DeMacon, Washington State University, Crop & Soil Sciences Dept., Pullman, Washington 99164-6420, United States; Kimberlee Kidwell, Washington State University, Dept. of Crop & Soil Sciences, Pullman, Washington 99164-6420, United States; Nilsa Bosque-Perez, University of Idaho, Dept of Plant, Soil, & Entomological Sciences, Moscow, Idaho 83844-2339, United States; G.S. Shelton, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; J.W. Burns, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; Xianming Chen, USDA-ARS, Washington State University, 361 Johnson Hall, Pullman, Washington 99164-6430, United States; B.P. Carter, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States.

Received 03/11/2003.

**PI 632857. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "HOLLIS"; WA007859; NSGC 8872. CV-954. Pedigree - Butte 86/Copper/4/Sawtell/Tabasi//Makay/3/Minnpro. Released 2003. Hard red spring wheat. Semi-dwarf, awned, mid-season maturity, white straw and white glumes. Targeted to the semi-arid to intermediate rainfall (>400 mm of average annual precipitation) production regions of Washington State as a replacement for Scarlet due to similar yield potential, and superior test weight, grain protein content and end-use quality. Resistant to local biotypes of Hessian fly. Susceptible to the Russian wheat aphid. Resistant to local races of stripe rust. High molecular weight glutenin subunits of 2\*(1A), 17+18(1B), 5+10(1D).

The following were developed by Stephen T. Kenny, Washington State University, IAREC, 24106 N. Bunn Road, Prosser, Washington 99350-8694, United States; Alfred Haunold, USDA, ARS, Oregon State University, Department of Crop Sciences, Corvallis, Oregon 97333, United States; John A. Henning, USDA, ARS, NFSPRC, Oregon State University, Crop Science Building, Corvallis, Oregon 97331, United States; Walter Mahaffee, USDA-ARS-HCRL, 3420 NW Orchard, Corvallis, Oregon 97331, United States; S. Townsend, Oregon State University, Crop and Soil Sci. Dept., Corvallis, Oregon 97331, United States. Donated by John A. Henning, USDA, ARS, NFSPRC, Oregon State University, Crop Science Building, Corvallis, Oregon 97331, United States. Received 08/21/2002.

**PI 632858. *Humulus lupulus* L.**

Cultivar. "Newport"; USDA 21736; 9404-027; CHUM 1332. CV-27. Pedigree - Hallertauer Magnum x USDA 58111M. Super-alpha hop variety with high yields and resistance to both powdery mildew (*Sphaerotheca macularis*) and downy mildew (*Pseudoperonospora humuli*).

The following were donated by Soon Jai Park, Agriculture and Agri-Food Canada, Harrow Research Station, 2585 County Road 20, Harrow, Ontario N0R 1G0, Canada. Received 08/03/1992.

**PI 632859. *Phaseolus vulgaris* L.**

Cultivar. "CENTRALIA"; W6 10662.

**PI 632860. *Phaseolus vulgaris* L.**

Cultivar. "SHETLAND"; W6 10675.

**PI 632861. *Phaseolus vulgaris* L.**

Cultivar. "ARESTEUBEN"; W6 10661.

The following were collected by Craig Sandlin, University of Nebraska, Department of Plant Pathology, Lincoln, Nebraska 68583-0722, United States; Marcelo Salgado, Instituto Nacional de Tecnologia Agropecuaria, C.C. 228, Salta, Salta 4400, Argentina; Roberto Neumann, Instituto Nacional de Tecnologia Agropecuaria, C.C. 228, Salta, Salta 4400, Argentina. Received 1995.

**PI 632862. *Phaseolus augusti* Harms**

Wild. W6 17479. Collected 04/1995 in Argentina. Latitude 24 deg. 53' 46'' S. Longitude 65 deg. 48' 3'' W. Elevation 1620 m. Entrada a la

Quebrada del Toro, Salta. Growing in tall brush with *Phaseolus vulgaris*.

The following were donated by N. Quat Ng, International Institute of Tropical Agriculture, Oyo Road, PMB 5320, Ibadan, Oyo, Nigeria. Received 03/03/2000.

- PI 632863. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. PS87-T-328; TVNu 298; Grif 14392. . Collected in Tanzania.
- PI 632864. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. PS87-T-343; TVNu 299; Grif 14393. . Collected in Tanzania.
- PI 632865. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. PS87-T-354; TVNu 300; Grif 14394. . Collected in Tanzania.
- PI 632866. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. PS87-T-369; TVNu 301; Grif 14395. . Collected in Tanzania.
- PI 632867. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-9; TVNu 321; Grif 14396. . Collected in Zambia.
- PI 632868. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-398; TVNu 371; Grif 14399. . Collected in Malawi.
- PI 632869. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-200; TVNu 435; Grif 14400. . Collected in Malawi.
- PI 632870. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-368; TVNu 440; Grif 14401. . Collected in Malawi.
- PI 632871. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-371; TVNu 441; Grif 14402. . Collected in Malawi.
- PI 632872. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-379; TVNu 442; Grif 14403. . Collected in Malawi.
- PI 632873. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. PS87-Z-100; TVNu 455; Grif 14404. . Collected in Zimbabwe.
- PI 632874. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO86-84; TVNu 457; Grif 14405. . Collected in Mali.
- PI 632875. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-5; TVNu 523; Grif 14408. . Collected in Zambia.
- PI 632876. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. PS87-T-333; TVNu 531; Grif 14410. . Collected in Tanzania.
- PI 632877. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-B-3; TVNu 551; Grif 14413. . Collected in Botswana.
- PI 632878. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-3; TVNu 554; Grif 14414. . Collected in Zambia.
- PI 632879. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-88; TVNu 582; Grif 14415. . Collected in Niger.

- PI 632880. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-193; TVNu 667; Grif 14416. . Collected in Niger.
- PI 632881. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-196; TVNu 669; Grif 14417. . Collected in Niger.
- PI 632882. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-238; TVNu 671; Grif 14418. . Collected in Niger.
- PI 632883. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-239; TVNu 672; Grif 14419. . Collected in Niger.
- PI 632884. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-251; TVNu 674; Grif 14420. . Collected in Niger.
- PI 632885. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-254; TVNu 675; Grif 14421. . Collected in Niger.
- PI 632886. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-59; TVNu 680; Grif 14422. . Collected in Niger.
- PI 632887. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-71; TVNu 685; Grif 14423. . Collected in Niger.
- PI 632888. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-B-93; TVNu 786; Grif 14425. . Collected in Botswana.
- PI 632889. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-N-187; TVNu 787; Grif 14426. . Collected in Botswana.
- PI 632890. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-116; TVNu 818; Grif 14427. . Collected in Botswana.
- PI 632891. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. PS87-Z-86; TVNu 863; Grif 14428. . Collected in Zimbabwe.
- PI 632892. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. PS87-T-430; TVNu 864; Grif 14429. . Collected in Tanzania.
- PI 632893. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87N-139; TVNu 951; Grif 14430. . Collected in Nigeria.
- PI 632894. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG87-87; TVNu 961; Grif 14431. . Collected in Zambia.
- PI 632895. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO86-74; TVNu 970; Grif 14432. . Collected in Mali.
- PI 632896. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AG86-72; TVNu 979; Grif 14433. . Collected in Senegal.
- PI 632897. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.  
Uncertain. AO87-B-62B; TVNu 1144; Grif 14434. . Collected in Botswana.
- PI 632898. *Vigna unguiculata* subsp. *pubescens* (R. Wilczek) Pasquet  
Uncertain. KR 795; TVNu 111; Grif 14385. . Collected in Tanzania.

- PI 632899. *Vigna unguiculata* subsp. *pubescens*** (R. Wilczek) Pasquet  
Uncertain. KR 797; TVNu 113; Grif 14386. . Collected in Tanzania.
- PI 632900. *Vigna unguiculata* subsp. *pubescens*** (R. Wilczek) Pasquet  
Uncertain. PS87-T-394; TVNu 505; Grif 14407. . Collected in Tanzania.
- PI 632901. *Vigna unguiculata* subsp. *pubescens*** (R. Wilczek) Pasquet  
Uncertain. PS87-T-326; TVNu 533; Grif 14411. . Collected in Tanzania.
- PI 632902. *Vigna unguiculata* subsp. *pubescens*** (R. Wilczek) Pasquet  
Uncertain. PS87-T-382; TVNu 538; Grif 14412. . Collected in Tanzania.
- PI 632903. *Vigna unguiculata* subsp. *stenophylla*** (Harv.) Marechal et al.  
Uncertain. AG87-16; TVNu 354; Grif 14398. . Collected in Zambia.
- PI 632904. *Vigna unguiculata* subsp. *stenophylla*** (Harv.) Marechal et al.  
Uncertain. AO87-64; TVNu 462; Grif 14406. . Collected in Botswana.

The following were developed by Thomas E. Devine, USDA, ARS, Sustainable Agricultural Systems Laboratory, Building 001, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 03/03/2003.

- PI 632905. *Glycine max*** (L.) Merr.  
Cultivar. "Moon Cake". PVP 200300169. Pedigree - [[(Wilson 6 X Forrest) X (Perry X (Williams X PI 229358))] X Ripley] X Disoy. Flowers white and gray pubescence. Seeds elongate with lustrous yellow seed coats and light buff colored hila. Seeds weight 27 g per 100 seeds. Yield of 3,144 kg per hectare of dry grain in 2001 and 2,864 kg per hectare in 2002 in a replicated plot test at Beltsville, MD. Large seeded, indeterminate vegetable soybean cv. growing to a height of 5 or 6 feet with good lodging resistance and intended for use as edamame. Not developed by genetic engineering. At Beltsville, MD, plants grew to an average height of 164 cm with 21 seed bearing nodes with average of 7 cm between nodes. Forty days after flower initiation, the sucrose concentration in seeds averaged 101 mg/g. Resistant to frogeye leafspot incited by *Cercospora sojina*. Susceptible to southern stem canker disease (*Diaporthe phaseolorum*). Mildly susceptible to sudden death syndrome (*Fusarium solani*). Susceptible to races 7 and 33 of phytophthora root rot (*Phytophthora megasperma*). Susceptible to purple seed stain (*Cercospora*).

The following were developed by R.S. Sadasivaiah, Agriculture and Agri-Food Canada, Research Station, P.O. Box 3000, Main, Lethbridge, Alberta T1J 4B1, Canada; S.M. Perkovic, Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, Alberta T1J 4B1, Canada; D.C. Pearson, Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, Alberta T1J 4B1, Canada; B. Postman, Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, Alberta T1J 4B1, Canada; B.L. Beres, Agriculture and Agri-Food Canada, Lethbridge Research Centre, P.O. Box 3000, Alberta T1J 4B1, Canada. Received 03/06/2003.

- PI 632906. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "AC MEENA"; SWS-234. CV-935. Pedigree - AC Reed/SWS-124. Released 2001. Semidwarf soft white spring wheat having high yield potential combined with resistance to lodging and shattering. Resistant to stripe rust (*Puccinia striiformis*) and has moderate

resistance to powdery mildew (*Erysiphe graminis*) and black point (*Alternaria alternate*). Moderately susceptible to leaf rust (*P. triticina*), susceptible to common bunt (*Tilletia laevis* and *T. tritici*) and highly susceptible to loose smut (*Ustilago tritici*). Good milling and end-use quality suitable for cookie, cake and pastry products.

**PI 632907. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "AC ANDREW"; SWS-241. CV-936. Pedigree - Anther-derived doubled haploid line developed from the cross Dirkwin/SC8021V2//Treasure/Blanca. Released 2001. Semidwarf soft white spring wheat having high yield potential combined with resistance to lodging and shattering. Resistant to stripe rust (*Puccinia striiformis*), stem rust (*P. graminis*) and powdery mildew (*Erysiphe graminis*), and has moderate resistance to leaf rust (*P. triticina*) and black point (*Alternaria alternate*). Susceptible to common bunt and highly susceptible to loose smut. Milling and end-use quality suitable for cookie, cake and pastry products.

The following were donated by N. Quat Ng, International Institute of Tropical Agriculture, Oyo Road, PMB 5320, Ibadan, Oyo, Nigeria. Received 03/03/2000.

**PI 632908. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.**

Uncertain. AO87-12; TVNu 261; Grif 14388. . Collected in Botswana.

**PI 632909. *Vigna unguiculata* subsp. *dekindtiana* (Harms) Verdc.**

Uncertain. PS87-T-167; TVNu 297; Grif 14391. . Collected in Tanzania.

**PI 632910. *Vigna unguiculata* subsp. *pubescens* (R. Wilczek) Pasquet**

Uncertain. KR 793; TVNu 109; Grif 14383. . Collected in Tanzania.

**PI 632911. *Vigna unguiculata* subsp. *stenophylla* (Harv.) Marechal et al.**

Uncertain. AO87-55; TVNu 265; Grif 14389. . Collected in Botswana.

**PI 632912. *Vigna unguiculata* subsp. *stenophylla* (Harv.) Marechal et al.**

Uncertain. AO87-123; TVNu 285; Grif 14390. . Collected in Botswana.

**PI 632913. *Vigna unguiculata* subsp. *stenophylla* (Harv.) Marechal et al.**

Uncertain. AG87-14; TVNu 353; Grif 14397. . Collected in Zambia.

The following were developed by S. Shanmugasundaram, Asian Vegetable Research & Dev. Center, P.O. Box 42, Shunhua, Tainan, Taiwan; M.A. Afzal, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh; Md. Abu Bakr, Bangladesh Agricultural Research Institute, Pulses Research Centre, Gazipur, Bangladesh; M. Motior Rahman, Bangladesh Agricultural Research Institute, Pulses Research Center, Gazipur, Bangladesh; Nusrat Karim Luna, Bangladesh Agricultural Research Institute, Pulses Research Centre, Gazipur, Bangladesh; A. Hamid, Bangabadhu Sheikh Mujibur Rahman Agricultural University, Dept. of Agronomy, Gaqipur-1701, Bangladesh. Received 03/09/2000.

**PI 632914. *Vigna radiata* (L.) R. Wilczek**

Cultivar. Pureline. BARIMUNG-5; Grif 14473. CV-209. Pedigree - Developed from NM-92 introduced from AVRDC in 1992. Erect with the raceme inflorescence, flowers at 28 days, less branching, and matures 10-15 days earlier than the widely adapted cultivar Barimung-2. Reaches

physiological maturity at 55 days. Average plant height at maturity 40-45 cm, which is smaller than the earlier released varieties. Leaves alternate, trifoliate, and deep green with purple hypocotyls. Corolla yellow with a light green calyx. Matured pod black. Seeds drum-shaped, bold, and deep green with a shiny surface. Average 100 seed weight 4.2 g. Resistance to mungbean yellow mosaic virus (MYMV) and cercospora leaf spot (CLS). During initial evaluation, the families or lines were screened for combined resistance using the spreader - row technique. Highly susceptible lines for YMV (IMN86) and CLS (M99) were planted after every five families or lines to create artificial diseases pressure. Rated 0 on 0 to 5 rating scale for both diseases throughout evaluation across location.

The following were collected by Helmer Ayala, Universidad de San Carlos de Guatemala, Ciudad Universitaria, Zona 12, Apartado Postal No 1545, San Carlos, Guatemala. Received 01/26/1998.

**PI 632915. *Capsicum annuum* L.**

Landrace. FAUSAC 149; pico de paja; NGRL 268; Grif 14098. Collected 04/14/1996 in Izabal, Guatemala. Latitude 15 deg. 57' N. Longitude 89 deg. 3' W. Elevation 200 m. Las Pavas, Puerto Barrios.

**PI 632916. *Capsicum annuum* L.**

Landrace. FAUSAC 176; chiltepe; NGRL 271; Grif 14101. Collected 07/23/1997 in Quiche, Guatemala. Latitude 15 deg. 11' N. Longitude 91 deg. 5' W. Elevation 1525 m. San Bartolome, San Bartolome.

**PI 632917. *Capsicum frutescens* L.**

Landrace. FAUSAC 210; diente de perro; NGRL 274; Grif 14104. Collected 07/31/1997 in Jutiapa, Guatemala. Latitude 14 deg. 20' N. Longitude 89 deg. 42' W. Elevation 680 m. Asuncion Mita, Asuncion Mita.

**PI 632918. *Capsicum frutescens* L.**

Landrace. FAUSAC 268; chiltepe; NGRL 275; Grif 14105. Collected 08/28/1997 in Huehuetenango, Guatemala. Latitude 15 deg. 24' N. Longitude 91 deg. 57' W. Elevation 1388 m. Cuilco, Cuilco.

The following were developed by Judy A. Thies, USDA, ARS, U. S. Vegetable Laboratory, 2700 Savannah Highway, Charleston, South Carolina 29414-5334, United States; Richard L. Fery, USDA, ARS, U.S. Vegetable Laboratory, 2700 Savannah Highway, Charleston, South Carolina 29414-5334, United States. Donated by Robert L. Jarret, USDA, ARS, Plant Genetic Resources Conservation Unit, University of Georgia, Griffin, Georgia 30223-1797, United States. Received 03/12/2002.

**PI 632919. *Capsicum annuum* L.**

Cultivar. "Charleston Belle"; Grif 15015. Resistant to southern root-knot nematode [*Meloidogyne incognita* (Kofoid and White) Chitwood].

The following were developed by Richard L. Fery, USDA, ARS, U.S. Vegetable Laboratory, 2700 Savannah Highway, Charleston, South Carolina 29414-5334, United States. Received 03/21/2002.

**PI 632920. *Capsicum annuum* L.**

Cultivar. "Carolina Wonder"; Grif 15016.

The following were collected by Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; Cesar Azurdia, Instituto de Investigaciones Agronomicas, Universidad de San Carlos de Guatemala, Ciudad Universitaria, Zona 12, Guatemala City, Guatemala, Guatemala; David E. Williams, Internat'l Plant Genetic Resources Inst., Regional Office for the Americas, c/o CIAT, Int'l Ctr. for Tropical Agric., Cali, Valle, Colombia. Received 01/26/1998.

**PI 632921. *Capsicum annuum* var. *glabriusculum*** (Dunal) Heiser & Pickersgill Wild. WWA-1404; chile pepe; NGRL 253; Grif 14083. Collected 11/20/1997 in Huehuetenango, Guatemala. Latitude 15 deg. 46' 4" N. Longitude 91 deg. 50' 33" W. Elevation 788 m. La Laguna, Jacaltenango. Poptic native community. Rolling hills, rocky soil. Growing at edge of farmer's field. Other crops: Spondias mombin, Carica papaya, and Hibiscus sabdariffa. Near peanut field. Weeds: Tagetes. Shrub, 1.5 m tall. Fruits upright, oval shaped, 1 cm long, green, turning glossy black, then orange when ripe. Flowers cream colored with purple anthers, petals retroflexed, 1 per node.

The following were collected by Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; Fatima Mereles, Facultad de Ciencias Quimicas of the National University, Herbarium, San Lorenzo, Paraguay; Pedro Juan Caballero, Ministry of Agriculture and Livestock, Instituto Agronomico Nacional, Caacupe, Paraguay; David E. Williams, Internat'l Plant Genetic Resources Inst., Regional Office for the Americas, c/o CIAT, Int'l Ctr. for Tropical Agric., Cali, Valle, Colombia. Received 06/17/1998.

**PI 632922. *Capsicum baccatum* L. var. *baccatum*** Wild. WWMC 122; ky y'; Grif 14133. . Collected 05/05/1998 in Caazapa, Paraguay. Latitude 26 deg. 23' 54" S. Longitude 56 deg. 7' W. Santa Ursula. Hilltop, wooded grassland. Forest margin. Grazed area nearby. Slope 0 deg. Soil silty loam, soil drainage moderate, stoniness none. Inundated low areas separate populations. Associated plant species: Enterlobium, Citrus, Cajanus, Carica. Plant very branched from the base, erect, 1 m tall. Flowers erect, cream-colored with yellowish green spots at the base of the corolla. Fruits erect, triangular, up to 2 cm long, red when mature. One plant. Said to be too hot to eat.

**PI 632923. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh Landrace. WWMC 120; locote'i; Grif 14131. . Collected 05/05/1998 in Guaira, Paraguay. Latitude 25 deg. 46' 59" S. Longitude 56 deg. 26' 41" W. Elevation 150 m. Villarica. City market. Plants cultivated in a home garden. Fruit triangular, 3-5 cm long, 2-3 cm wide, intense red color at maturity. Sweet. Seeds cream colored. Eaten as a vegetable.

**PI 632924. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh Landrace. WWMC 121; pimienta i; locote chico; Grif 14132. . Collected 05/05/1998 in Guaira, Paraguay. Latitude 25 deg. 58' 2" S. Longitude 56 deg. 30' 46" W. Boqueron. Garden. Plain. Slope 0 deg. Soil clay loam, soil drainage moderate, no stones. Plant low, habit intermediate, 40 cm tall, 50 cm wide. Flowers white with green spots at base of corolla. Fruit pendulous, triangular, 3 cm long, truncate at pedicel attachment,

pointed at blossom end, green turning red when mature, not piquant. Seeds cream-colored. Only two plants found. Grown as an ornamental plant as well as a vegetable. Used to de-worm children. Not cultivated. Continuous harvesting. Consumed only by family. No market for crop.

- PI 632925. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. WWMC 123; ky y'; Grif 14134. . Collected 05/06/1998 in Guaira, Paraguay. Latitude 25 deg. 47' 14'' S. Longitude 56 deg. 15' 22'' W. Elevation 355 m. Colonia Independencia, Compania Mainumby, road to Cerro Acati. Farmhouse. Slope 0 deg. Soil drainage moderate. Plants erect, 40 cm tall. Flowers erect, white with greenish spots at the base of the corolla. Fruits almost round, shiny red, piquant. All soil preparation, planting, maintenance, harvesting, seed handling and post-harvest handling, including seed selection, done by women. Principally consumed by farmer's family.
- PI 632926. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. WWMC 124; locote pucu; Grif 14135. . Collected 05/06/1998 in Guaira, Paraguay. Latitude 25 deg. 47' 14'' S. Longitude 56 deg. 15' 22'' W. Elevation 355 m. Colonia Independencia, Compania Mainumby, road to Cerro Acati. Farmhouse. Slope 0 deg. Soil drainage moderate. Plants erect, 40 cm high. Flowers erect, white with greenish spots at the base of the corolla. Fruits triangular, 4-7 cm long, shiny red, sweet. All soil preparation, planting, maintenance, harvesting, seed handling and post-harvest handling, including seed selection, done by women. Mostly consumed by farmer's family. Some fruits sold to neighbors.
- PI 632927. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. WWMC 126; locotito; ky y'; Grif 14136. . Collected 05/08/1998 in Paraguari, Paraguay. Latitude 26 deg. 1' 21'' S. Longitude 57 deg. 0' 48'' W. Elevation 145 m. Ybycui, Compania Ybycui. Urban house garden. Garden at house of Luis Ocampos. Slope 0 deg. Soil drainage moderate, soil coarse sand, no stones. Plant erect, approximately 70 cm tall. Flowers white with yellowish green spots at the base of the corolla. Fruits pendulous, elongated, 4-5 cm long, 1.5 cm wide, pointed at blossom end, shiny red when mature, piquant. Only one plant. Plant volunteered. No wild relatives growing nearby. No care given to plant. All harvesting done by the man of the house. Fruits used as a condiment by family.
- PI 632928. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. WWMC 127; locotito; Grif 14137. . Collected 05/08/1998 in Paraguari, Paraguay. Latitude 26 deg. 1' 21'' S. Longitude 57 deg. 0' 48'' W. Elevation 145 m. Ybycui, Compania Ybycui. Urban house garden. Garden at house of Luis Ocampos. Slope 0 deg. Soil drainage moderate, soil coarse sand, no stones. Plant erect, approximately 70 cm tall. flowers white with yellowish green spots at the base of the corolla. Fruits pendulous, elongated, 4-5 cm long, 1.5 cm wide, pointed at blossom end, shiny red when mature, piquant. Only one plant. Plant volunteered. No wild relatives growing nearby. No care given to plant. All harvesting done by the man of the house. Fruits used as condiment by family.
- PI 632929. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. WWMC 128; Grif 14138. . Collected 05/08/1998 in Paraguari, Paraguay. Latitude 26 deg. 1' 21'' S. Longitude 57 deg. 0' 48'' W. Elevation 145 m. Ybycui, Compania Ybycui. Urban house garden. Slope 0

deg., soil drainage moderate, soil coarse sand, no stones. Plant erect, supported on a wire fence, 1.4 m tall. Fruits triangular, 3 cm long, 1 cm wide, brilliant red when mature, piquant. Plant volunteered. No care given to plant. No wild relatives growing nearby. Harvesting done by man of the house. Fruits used as condiment by family.

The following were collected by Helmer Ayala, Universidad de San Carlos de Guatemala, Ciudad Universitaria, Zona 12, Apartado Postal No 1545, San Carlos, Guatemala. Received 01/26/1998.

**PI 632930. *Capsicum frutescens* L.**

Landrace. FAUSAC 130; chile; NGRL 266; Grif 14096. Collected 05/14/1997 in Escuintla, Guatemala. Latitude 14 deg. 10' N. Longitude 91 deg. 20' W. Elevation 50 m. Nueva Concepcion, Nueva Concepcion.

**PI 632931. *Capsicum frutescens* L.**

Landrace. FAUSAC 134; igual chocolate; NGRL 267; Grif 14097. Collected 05/14/1997 in Suchitepequez, Guatemala. Latitude 14 deg. 34' N. Longitude 91 deg. 28' W. Elevation 692 m. Vivero, San Bernadino.

**PI 632932. *Capsicum frutescens* L.**

Landrace. FAUSAC 271; chiltepe; NGRL 276; Grif 14106. Collected 09/02/1997 in Alta Verapaz, Guatemala. Latitude 15 deg. 5' N. Longitude 90 deg. 29' W. Elevation 973 m. Rabinal, Rabinal.

The following were donated by Ngo Quang Thang, Vietnam Agricultural Science Institute, Vietnam. Received 05/21/2001.

**PI 632933. *Glycine max* (L.) Merr.**

Uncertain. Pureline. Vang Chi Thao; SY 114001.

**PI 632934. *Glycine max* (L.) Merr.**

Uncertain. Pureline. Vang Phu Nhung; SY 114002.

**PI 632935. *Glycine max* (L.) Merr.**

Uncertain. Pureline. Vang Ninh Tap; SY 114003.

Unknown source. Received 05/21/2001.

**PI 632935 A. *Glycine max* (L.) Merr.**

Cultivated. Pureline.

Unknown source. Received 05/21/2001.

**PI 632935 B. *Glycine max* (L.) Merr.**

Cultivated. Pureline.

The following were donated by Ngo Quang Thang, Vietnam Agricultural Science Institute, Vietnam. Received 05/21/2001.

**PI 632936. *Glycine max* (L.) Merr.**

Uncertain. Pureline. Vang Hoa An; SY 114005.

- PI 632937. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. Don Sa; SY 114006.
- PI 632938. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. Cuc Luc Ngan; SY 114007.
- PI 632939. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. Vang Quang Hoa; SY 114008.
- PI 632940. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. Lang Gai; SY 114009.
- PI 632941. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. Tien Yen; SY 114011.
- PI 632942. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. Nguyen Hue; SY 114014.

Unknown source. Received 05/21/2001.

- PI 632942 A. *Glycine max*** (L.) Merr.  
Cultivated. Pureline.

Unknown source. Received 05/21/2001.

- PI 632942 B. *Glycine max*** (L.) Merr.  
Cultivated. Pureline.

The following were donated by Ngo Quang Thang, Vietnam Agricultural Science Institute, Vietnam. Received 05/21/2001.

- PI 632943. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. Dau nanh; SY 114015.

Unknown source. Received 05/21/2001.

- PI 632943 A. *Glycine max*** (L.) Merr.  
Cultivated. Pureline.

Unknown source. Received 05/21/2001.

- PI 632943 B. *Glycine max*** (L.) Merr.  
Cultivated. Pureline.

The following were donated by Ngo Quang Thang, Vietnam Agricultural Science Institute, Vietnam. Received 05/21/2001.

- PI 632944. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. TN.12; SY 114016.

- PI 632944 A. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. TN.12.
- PI 632944 B. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (TN.12).
- PI 632944 C. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (TN.12).
- PI 632944 D. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. (TN.12).
- PI 632945. *Glycine max*** (L.) Merr.  
Uncertain. Pureline. Chu se; SY 114017.

Unknown source. Received 05/21/2001.

- PI 632945 A. *Glycine max*** (L.) Merr.  
Cultivated. Pureline.

Unknown source. Received 05/21/2001.

- PI 632945 B. *Glycine max*** (L.) Merr.  
Cultivated. Pureline.

The following were donated by Reid G. Palmer, USDA, ARS, Iowa State University, Department of Agronomy, Ames, Iowa 50011, United States. Received 02/11/2003.

- PI 632946. *Glycine max*** (L.) Merr.  
Genetic. Pureline. PS-1; T364; SY 304001.
- PI 632947. *Glycine max*** (L.) Merr.  
Genetic. Pureline. PS-2; T365H; SY 304002.
- PI 632948. *Glycine max*** (L.) Merr.  
Genetic. Pureline. PS-3; T366H; SY 304003.
- PI 632949. *Glycine max*** (L.) Merr.  
Genetic. Pureline. PS-4; T367H; SY 304004.

The following were donated by Tommy E. Carter, USDA, ARS, North Carolina State University, 3127 Ligon Street Box 7631, Raleigh, North Carolina 27695-7631, United States; S. Shanmugasundaram, Asian Vegetable Research & Dev. Center, P.O. Box 42, Shunhua, Tainan, Taiwan. Received 06/25/2002.

- PI 632950. *Glycine max*** (L.) Merr.  
Cultivated. Pureline. Blue Side; SY 306001.

The following were developed by Karen A. Moldenhauer, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; Fleet N. Lee, University of Arkansas, Rice Research &

Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; R.J. Norman, University of Arkansas, Rice Research & Extension Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; J. Neil Rutger, USDA, ARS, Dale Bumpers National Rice Research Ctr., 2890 Hwy 130 East, Stuttgart, Arkansas 72160, United States; Kenneth Gravois, Louisiana State University, Sugar Research Station, 5755 LSU Ag. Road, St. Gabriel, Louisiana 70776, United States; R. J. Bryant, USDA-ARS, Dale Bumpers National Rice Research Center, 2890 Highway 130 East, Stuttgart, Arkansas 72160, United States. Received 03/14/2003.

**PI 632951. *Oryza sativa* L.**

Breeding. Pureline. ADAR 22. GP-88. Pedigree - Gamma ray induced semidwarf mutant of cultivar Adair. Released 2002. Height 86 cm tall, or 18 cm shorter and three days later than its parent, Adair. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used *sdl* gene. In one yield test, yielded 6380 compared to 5630 kg ha<sup>-1</sup> for its parent, in another test both lodged so badly that they could not be harvested. Seed dimensions and amylose content were similar to the parent. Shows essentially the same susceptibility as parent to seven blast isolates, IB1, IB33, IB49, IC17, IELK, IGI, and IG1.

**PI 632952. *Oryza sativa* L.**

Breeding. Pureline. KATY 1. GP-89. Pedigree - Gamma ray induced semidwarf mutant of cultivar Katy. Released 2002. Height 80 cm tall, or 24 cm shorter and two days earlier than its parent Katy. In genetic studies, was found to have a single recessive gene for semidwarfism which was nonallelic to the widely used *sdl* gene. Averaged over three tests, yielded 5580 compared to 6600 kg ha<sup>-1</sup> for parent. Seed dimensions and amylose content were similar to the parent. Showed similar blast reactions as parent. Both were susceptible to isolates IB33 and IELK and resistant to five other isolates, IB1, IB49, IC17, IGI, and IG1.

**PI 632953. *Oryza sativa* L.**

Breeding. Pureline. KBNT 11. GP-90. Pedigree - Gamma ray induced semidwarf mutant of the cultivar Kaybonnet. Released 2002. Height 84 cm tall, or 19 cm shorter and two days later than its parent Kaybonnet. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used *sdl* gene. Seed dimensions and amylose content were similar to the parent.

The following were developed by Karen A. Moldenhauer, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; J. Neil Rutger, USDA, ARS, Dale Bumpers National Rice Research Ctr., 2890 Hwy 130 East, Stuttgart, Arkansas 72160, United States; James W. Gibbons, University of Arkansas, Rice Research & Ext. Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; R. J. Bryant, USDA-ARS, Dale Bumpers National Rice Research Center, 2890 Highway 130 East, Stuttgart, Arkansas 72160, United States. Received 03/14/2003.

**PI 632954. *Oryza sativa* L.**

Breeding. Pureline. GLPA. GP-93. Pedigree - Developed by hybridizing the low phytic acid mutant KBNT *lpal-1* of Kaybonnet with the goldhull color cv. Bluebelle, followed by selection for recombinants possessing the recessive gene *lpal-1* from the first parent and the recessive gene for goldhull(*gh*) from the second parent. Released 2003. While the original

low phytic acid mutant KBNT lpal-1 was phenotypically indistinguishable from the original parent, GLPA germplasm is marked by goldhull color, enabling identity preservation of the line in the field, in the farm truck, and in the elevator. The lpal-1 gene reduces the phytic acid portion of seed phosphorus from 71 to 39%, with a concomitant increase in inorganic phosphorus of 5 to 32%, with little effect on total seed P. This is considered important because phytic acid P is poorly digested by humans and non-ruminant livestock, and also may interfere with nutritional uptake of iron, calcium and zinc. Like both parents, is long grain, has glabrous hulls, and tall plant type. In a preliminary small-plot test at Stuttgart, AR in 2002, GLPA, KBNT lpal-1, and KBNT averaged 6800, 6600, and 6900 kg ha<sup>-1</sup>, respectively. All three were similar in height, ca. 118 cm and maturity, flowering 105-107 days after planting. Amylose contents of all three also were similar, 230-240 g.

The following were developed by Karen A. Moldenhauer, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; Fleet N. Lee, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; R.J. Norman, University of Arkansas, Rice Research & Extension Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; J. Neil Rutger, USDA, ARS, Dale Bumpers National Rice Research Ctr., 2890 Hwy 130 East, Stuttgart, Arkansas 72160, United States; Kenneth Gravois, Louisiana State University, Sugar Research Station, 5755 LSU Ag. Road, St. Gabriel, Louisiana 70776, United States; R. J. Bryant, USDA-ARS, Dale Bumpers National Rice Research Center, 2890 Highway 130 East, Stuttgart, Arkansas 72160, United States. Received 03/14/2003.

**PI 632955. *Oryza sativa* L.**

Breeding. Pureline. LGRU 2. GP-91. Pedigree - Gamma ray induced semidwarf mutant of the cultivar LaGrue. Released 2002. Height 84 cm tall, or 25 cm shorter and the same maturity as its parent LaGrue. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used *sdl* gene. Averaged over two tests, yielded 8560 compared to 8870 kg ha<sup>-1</sup> for its parent. Seed dimensions and amylose content were similar to the parent. Showed essentially the same susceptibility as its parent to seven blast isolates, IB1, IB33, IB49, IC17, IE1K, IGI, and IGI.

**PI 632956. *Oryza sativa* L.**

Breeding. Pureline. LGRU 14. GP-92. Pedigree - Gamma ray induced semidwarf mutant of the cultivar LaGrue. Released 2002. Height 85 cm tall, or 20 cm shorter and three days later than its parent, LaGrue. In genetic studies, found to have a single recessive gene for semidwarfism which was nonallelic to the widely used *sdl* gene. Seed dimensions and amylose content were similar to the parent.

The following were developed by Karen A. Moldenhauer, University of Arkansas, Rice Research & Extension Center, 2900 Hwy 130 E, Stuttgart, Arkansas 72160, United States; J. Neil Rutger, USDA, ARS, Dale Bumpers National Rice Research Ctr., 2890 Hwy 130 East, Stuttgart, Arkansas 72160, United States; James W. Gibbons, University of Arkansas, Rice Research & Ext. Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; R. J. Bryant, USDA-ARS, Dale Bumpers National Rice Research Center, 2890 Highway 130 East, Stuttgart, Arkansas 72160, United States; M.M. Anders, University of Arkansas, Rice

Research and Extension Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States. Received 03/21/2003.

**PI 632957. *Oryza sativa* L.**

Breeding. Pureline. LGRU ef. GP-94. Pedigree - Gamma ray induced early flowering mutant of cultivar LaGrue. Released 2003. Flowers 16 days earlier but otherwise is phenotypically similar to its parent LaGrue. Earliness is controlled by a single recessive gene. Shows an apparent yield penalty of 20% or more relative to standard Arkansas varieties. Seed dimensions and amylose content were similar to its parent.

The following were developed by Jim J. Hammond, North Dakota State University, North Dakota Agr. Exp. Sta., 370 E. Loftgard Hall, Fargo, North Dakota 58105, United States; J.B. Rasmussen, North Dakota State University, Dept. of Plant Pathology, Fargo, North Dakota 58105, United States; James D. Miller, USDA-ARS, Dept. of Plant Pathology, North Dakota State University, Fargo, North Dakota, United States. Donated by Jim J. Hammond, North Dakota State University, North Dakota Agr. Exp. Sta., 370 E. Loftgard Hall, Fargo, North Dakota 58105, United States. Received 03/06/2003.

**PI 632958. *Linum usitatissimum* L.**

Cultivar. "Nekoma"; N9719. CV-46. Pedigree - Omega/Bison. Resistant to all known North America races of flax rust (*Melampsora lini*). More susceptible to wilt (*Fusarium oxysporum*) than McGregor as evaluated at Fargo, ND and Morden, Manitoba. Better oil content (39.4%) than McGregor (37.3%). Excellent linolenic acid content (55.5%) as compared to McGregor (52.2%). The high linolenic acid content is also reflected in a very high Iodine Value. Better tolerance to PasmO (*Septoria linicola*) than McGregor. Small seeded (4.3 g/1000 seeds), blue flowers, brown seed coat (up to 0.5% yellow seeds), medium height (63 cm) with excellent lodging tolerance. Seed yield better than McGregor (107% of McGregor over 39 trials). Adapted to the north-central flax-growing region of the U.S.

The following were developed by Jim J. Hammond, North Dakota State University, North Dakota Agr. Exp. Sta., 370 E. Loftgard Hall, Fargo, North Dakota 58105, United States; James D. Miller, USDA-ARS, Dept. of Plant Pathology, North Dakota State University, Fargo, North Dakota, United States; G.D. Statler, North Dakota State University, Plant Pathology Dept., Fargo, North Dakota 58105-5051, United States. Donated by Jim J. Hammond, North Dakota State University, North Dakota Agr. Exp. Sta., 370 E. Loftgard Hall, Fargo, North Dakota 58105, United States. Received 03/06/2003.

**PI 632959. *Linum usitatissimum* L.**

Cultivar. "York"; C13423. CV-47. Pedigree - U23/C12929//McGregor. Resistant to all known North America races of flax rust (*Melampsora lini*) and has good tolerance to wilt (*Fusarium oxysporum*), as evaluated at Fargo, ND, St. Paul, MN and Morden, Manitoba. Good oil content and oil drying quality. Tall (63 cm), mid-flowering (59 days to first flower), blue flowers, large (4.5 g/1000 seeds), brown seed coat (up to 0.5% yellow seeds). one of the highest yielding entries in the 1997 regional test, yet in 1998 although it was among the higher yielding entries, it yielded less than Rahab94 on the average. In 1999, was the highest yielding entry in the early-seeded tests. Adapted to the north-central flax-growing region of the U.S.

The following were donated by Nick Breitbach, University of Wisconsin, Department of Horticulture, 381 Horticulture Building, Madison, Wisconsin 537706-150, United States. Received 02/01/2003.

**PI 632960. *Beta vulgaris* L. subsp. *vulgaris***

Cultivar. W300C; W6 24295. Pedigree - W300C came from ((H28 x W28) x W163). W300C is an inbred restorer with Bolt resistance, produces good round and smooth roots, shows moderate resistance to cercospora, a good pollinator and plants are slow to bolt in the flowering cycle.

The following were donated by Reid G. Palmer, USDA, ARS, Iowa State University, Department of Agronomy, Ames, Iowa 50011, United States. Received 04/20/1998.

**PI 632961. *Glycine max* (L.) Merr.**

Genetic. Pureline. MSM-1; A97-243; T357H; SY 9810019. Pedigree - T261 X T323.

**PI 632962. *Glycine max* (L.) Merr.**

Genetic. Pureline. MSM-2; A97-245; T358H; SY 9810020. Pedigree - T317 X T239.

**PI 632963. *Glycine max* (L.) Merr.**

Genetic. Pureline. MSM-3; A97-247; T359H; SY 9810021. Pedigree - T325 X L67-3483.

**PI 632964. *Glycine max* (L.) Merr.**

Genetic. Pureline. MSM-4; A97-249; T360H; SY 9810022. Pedigree - T261 X PI 567630 A.

The following were developed by Wisconsin Alumni Research Foundation, University of Wisconsin, Madison, Wisconsin, United States. Received 04/01/2003.

**PI 632965. *Daucus carota* L.**

Cultivar. "W279A". PVP 200300137.

**PI 632966. *Daucus carota* L.**

Cultivar. "W279B". PVP 200300138.

**PI 632967. *Daucus carota* L.**

Cultivar. "W281C". PVP 200300139.

**PI 632968. *Daucus carota* L.**

Cultivar. "WAY274A". PVP 200300140.

**PI 632969. *Daucus carota* L.**

Cultivar. "WAY274B". PVP 200300141.

The following were developed by South Dakota Agricultural Experiment Station, Brookings, South Dakota, United States. Received 04/01/2003.

**PI 632970 PVPO. *Triticum aestivum* L.**  
Cultivar. "BRIGGS". PVP 200300142.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 04/01/2003.

**PI 632971 PVPO. *Lactuca sativa* L.**  
Cultivar. "SAHARA". PVP 200300143.

The following were developed by Cebeco International Seeds, Inc., P.O. Box 229, Halsey, Oregon 97348-0229, United States. Received 04/01/2003.

**PI 632972 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "KALAHARI". PVP 200300144.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 04/01/2003.

**PI 632973 PVPO. *Poa pratensis* L. subsp. *pratensis***  
Cultivar. "PST 1701". PVP 200300145.

**PI 632974 PVPO. *Poa pratensis* L. subsp. *pratensis***  
Cultivar. "BLACKSBURG II". PVP 200300146.

**PI 632975 PVPO. *Poa pratensis* L. subsp. *pratensis***  
Cultivar. "BLUESTONE". PVP 200300147.

**PI 632976 PVPO. *Poa pratensis* L. subsp. *pratensis***  
Cultivar. "GOLDEN NUGGET". PVP 200300148.

**PI 632977 PVPO. *Poa pratensis* L. subsp. *pratensis***  
Cultivar. "MIDNIGHT STAR". PVP 200300149.

**PI 632978 PVPO. *Festuca rubra* L. subsp. *rubra***  
Cultivar. "ABERDEEN". PVP 200300150.

**PI 632979 PVPO. *Festuca arundinacea* Schreb. subsp. *arundinacea***  
Cultivar. "SILVER STAR". PVP 200300151.

**PI 632980 PVPO. *Festuca arundinacea* Schreb. subsp. *arundinacea***  
Cultivar. "TAR HEEL II". PVP 200300152.

**PI 632981 PVPO. *Lolium perenne* L.**  
Cultivar. "PST-2SBE". PVP 200300153.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 04/01/2003.

**PI 632982 PVPO. *Poa pratensis* L. subsp. *pratensis***  
Cultivar. "CHAMPLAIN". PVP 200300154.

**PI 632983 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "SRX8BE4". PVP 200300155.

**PI 632984 PVPO. Festuca arundinacea** Schreb.  
Cultivar. "CONSTITUTION". PVP 200300156.

The following were developed by Lebanon Seaboard Corporation, United States; Timothy M. Ford, Lebanon Seaboard Corporation, P.O. Box 10, Huntsville, Utah 84317, United States. Received 04/01/2003.

**PI 632985. Poa pratensis L. subsp. pratensis**  
Cultivar. "SONOMA". PVP 200300157; CV-86. Pedigree - Selected from the progeny of a directed cross of C-74 and Lakeshore Kentucky bluegrasses. Medium-late reproductive maturity; good seed yield potential; good plus floret fertility; panicle production rating of 7 based on a 1-9 scale. Over 85% apomictic based on seedlings taken from the original turf plot. Appears highly apomictic in seed production fields in Oregon.

The following were developed by Lebanon Seaboard Corporation, United States. Received 04/01/2003.

**PI 632986. Festuca rubra subsp. fallax** (Thuill.) Nyman  
Cultivar. "AMBASSADOR". PVP 200300158; CV-94. Pedigree - An advanced generation synthetic cultivar selected from the maternal progenies of thirty-nine clones. Out of the 62 plants harvested and bulked as original breeder seed, 30 plants exhibited choke stroma, the reproductive structure of the *Epichloe festucae* endophyte.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 04/01/2003.

**PI 632987 PVPO. Cynodon dactylon** (L.) Pers. **var. dactylon**  
Cultivar. "SUNBIRD"; PST-R68A. PVP 200300159.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 04/01/2003.

**PI 632988 PVPO. Festuca arundinacea** Schreb.  
Cultivar. "P58". PVP 200300161.

The following were developed by Syngenta Seeds, Inc., United States. Received 04/01/2003.

**PI 632989 PVPO. Triticum aestivum** L.  
Cultivar. "COKER 9295". PVP 200300162.

The following were developed by Western Plant Breeders, Inc., Phoenix, Arizona, United States. Received 04/01/2003.

**PI 632990 PVPO. Hordeum vulgare** L.  
Cultivar. "BESTFORD". PVP 200300163.

The following were developed by Wisconsin Alumni Research Foundation, University of Wisconsin, Madison, Wisconsin, United States. Received 04/01/2003.

**PI 632991. *Daucus carota* var. *sativus* Hoffm.**  
Cultivar. "W280A". PVP 200300166.

**PI 632992. *Daucus carota* var. *sativus* Hoffm.**  
Cultivar. "W280B". PVP 200300167.

The following were developed by Enza Zaden De Enkhuizer Zaadhandel B.V., Enkhuizen, North Holland, Netherlands. Received 04/01/2003.

**PI 632993 PVPO. *Lactuca sativa* L.**  
Cultivar. "TELLURIDE". PVP 200300168.

The following were developed by Saskatchewan Wheat Pool, #15 Innovation Blvd., 207 - 112 Research Drive, Saskatoon, Saskatchewan S7N 2XB, Canada. Received 04/01/2003.

**PI 632994 PVPO. *Brassica juncea* (L.) Czern. var. *juncea***  
Cultivar. "ARID"; PC98-44. PVP 200300171.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 04/01/2003.

**PI 632995 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "RENDITION". PVP 200300174.

**PI 632996 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "TITAN LTD.". PVP 200300175.

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States; Pickseed West, Inc., P.O. Box 888, 33149 Highway 99E, Tangent, Oregon 97389, United States. Received 04/01/2003.

**PI 632997 PVPO. *Lolium perenne* L.**  
Cultivar. "MACH I". PVP 200300177.

The following were developed by Syngenta Seeds, Inc., United States. Received 04/01/2003.

**PI 632998 PVPO. *Phaseolus vulgaris* L.**  
Cultivar. "ASTUN". PVP 200300178.

The following were developed by California Cooperative Rice Research Foundation, Biggs, California, United States. Received 04/01/2003.

**PI 632999 PVPO. *Oryza sativa* L.**  
Cultivar. "M-206". PVP 200300180.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 04/01/2003.

**PI 633000 PVPO. Phaseolus vulgaris L.**  
Cultivar. "XP 08190505". PVP 200300181.

The following were developed by Wisconsin Alumni Research Foundation, University of Wisconsin, Madison, Wisconsin, United States. Received 04/01/2003.

**PI 633001 PVPO. Beta vulgaris L.**  
Cultivar. "W427A". PVP 200300183.

**PI 633002 PVPO. Beta vulgaris L.**  
Cultivar. "W427B". PVP 200300184.

**PI 633003 PVPO. Beta vulgaris L.**  
Cultivar. "W446B". PVP 200300185.

**PI 633004 PVPO. Beta vulgaris L.**  
Cultivar. "W446A". PVP 200300186.

The following were developed by Michael S. McMullen, North Dakota State University, Crop and Weed Sciences Department, Fargo, North Dakota 58105-5051, United States; NDSU Research Foundation, North Dakota, United States. Received 04/01/2003.

**PI 633005. Avena sativa L.**  
Cultivar. Pureline. "MORTON"; ND941119. PVP 200300192; CV-373. Pedigree - ND880922/IA B605X. Released 2001. Produces high grain yield and high test weight. Groat percentage is relatively high. Kernels are uniform in size with few kernels that were small enough to pass through a 5/64" slotted sieve. Groat protein concentration is average. Heading is late midseason. Relatively tall, excellent straw strength and good lodging resistance. Exhibits excellent resistance to crown rust and has good resistance to stem rust race NA27 but is susceptible to NA67. Groat oil concentration is low. Groat Beta-glucan concentration is average relative to current cultivars. Culms and leaf margins are glabrous and ligules are present. Has equilateral panicles with ascending branches. Spikelet separation occurs by fracture and floret separation by heterofracture. Lemmas are glabrous and basal hairs are absent. Kernels of Morton are medium to large and midplump. Lemma and palea are white and 95% of lemmas are fluorescent under irradiation with a UV light source. Awns are normally absent, but.

**PI 633006. Avena sativa L.**  
Cultivar. Pureline. "HI-FI"; ND9508252. PVP 200300193; CV-372. Pedigree - Amagalon/4/M23/RL3038//Otana/3/Froker/RL3038//RL3038/Hudson/5/MN78142/4/W80-20/3/Hudson/Lang//Dal. Released 2001. High grain yield potential and higher groat beta-glucan or soluble fiber concentration than other available cultivars. Possesses Pc-91 plus other unknown genes that together confer excellent resistance to prevalent crown rust pathotypes

in ND. Possesses Pg-13 that confers resistance to many stem rust pathotypes and a portion of the plants possess resistance to stem rust NA67 that is likely conferred by factors contributed by Amagalon. Has moderate tolerance to barley yellow dwarf virus. Culms and leaf margins are glabrous and ligules are present. Has equilateral panicles with ascending branches. Spikelet separation occurs by fracture and floret separation by heterofracture. Lemmas are glabrous and basal hairs are absent. Kernels are medium and midplump. Lemma and palea are white and 93% of lemmas are fluorescent under irradiation with a UV light source. Awns are normally absent, but weak awns may occur under some environmental conditions. Approximately 3% of plants are 15.

The following were developed by D&PL Technology Holding Corp., United States. Received 04/01/2003.

**PI 633007 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "1465003". PVP 200300195.

**PI 633008 PVPO. *Glycine max* (L.) Merr.**  
Cultivar. "7085005". PVP 200300196.

The following were developed by J. B. Davis, University of Idaho, Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States; L. Seip, University of Idaho, Dept. Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States; Jack Brown, University of Idaho, Dept. of Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States; D.A. Brown, University of Idaho, Dept. of Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States; T. Gosselin, University of Idaho, Dept. of Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States. Donated by Jack Brown, University of Idaho, Dept. of Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States. Received 04/01/2003.

**PI 633009. *Brassica juncea* (L.) Czern.**  
Cultivar. "Pacific Gold". PVP 200300202; CV-12. Pedigree - Pure-line (near homozygous) condiment oriental mustard developed from a single plant selection in 1993 from Cutlass / J.89.102 (an accession from the Univ. of Idaho collection). Plants emerge quickly after planting and crop establishment rapid. Flowering begins 54 days after planting which is on average one day later than Lethbridge 22A and similar to Cutlass. After flowering, plants average 150 cm in height, similar to Lethbridge 22A, but significantly taller than Cutlass. Plants mature on average 105 days after planting. Highly resist. to lodging and seed shatter at maturity. Seed yield potential in the inland Pacific Northwest region excellent. When planted under conventional tillage systems, average seed yield over 38 sites/years was 1,974 kg ha<sup>-1</sup>, which was significantly higher than Cutlass (1,795 kg ha<sup>-1</sup>) and Lethbridge 22A (1,698 kg ha<sup>-1</sup>). Yield potential when planted in direct seed system lower at 1,583 kg ha<sup>-1</sup>, over 36 year/sites, but significantly higher under these situations than Cutlass or Lethbridge 22A (1,471 & 1,378 kg ha<sup>-1</sup>, respectively). In Pacific Northwest Mustard Variety Trial between 1999& 2002, over 55 site/years of this trial,.

The following were developed by Soon Jai Park, Agriculture and Agri-Food

Canada, Harrow Research Station, 2585 County Road 20, Harrow, Ontario N0R 1G0, Canada. Received 04/01/2003.

**PI 633010. Phaseolus vulgaris L.**

Cultivar. "HR14"; W6 24296.

**PI 633011. Phaseolus vulgaris L.**

Cultivar. "HR20"; W6 24297.

**PI 633012. Phaseolus vulgaris L.**

Cultivar. "AC Calmont"; W6 24298. AC Calmont is a high yielding dark red kidney bean (*Phaseolus vulgaris* L.) with medium-full season maturity in Ontario. Its main advantages are high yielding potential and disease resistance. Seed has acceptable cooking/canning quality. AC Calmont is resistant to alpha, alpha Brazil and delta races of anthracnose (*Colletotrichum lindemuthianum*) and is resistant to bean common mosaic virus race 1 and 15.

**PI 633013. Phaseolus vulgaris L.**

Cultivar. "AC Elk"; W6 24299. Pedigree - Selection from a cross Mecosta/MRK44. Released 08/04/1998. AC Elk is a high-yielding, light red kidney bean (*Phaseolus vulgaris* L.) cultivar with early-season maturity in Ontario. Its main advantages are high yield potential and an early maturity. Seed has acceptable cooking/canning quality. AC Elk is resistant to race 1 of bean common mosaic virus and anthracnose (*Colletotrichum lindemuthianum*) race alpha and alpha Brazil.

**PI 633014. Phaseolus vulgaris L.**

Cultivar. "AC Trident"; W6 24300. AC Trident is a high-yielding navy bean cultivar with medium-late maturity. It has an upright plant type suitable for direct combine harvest. AC Trident has acceptable cooking/canning quality. It is resistant to races 1 and 15 of bean common mosaic virus.

**PI 633015. Phaseolus vulgaris L.**

Cultivar. "AC Compass"; W6 24301. AC Compass navy bean (*Phaseolus vulgaris* L.) was developed at the Agriculture and Agri-Food Canada Greenhouse and Processing Crops Research Centre (GPCRC), Harrow, Ontario. It has high yield potential, erect plant type and medium-early maturity in southwestern Ontario where it is recommended for areas with 2600 or higher CHU. It was registered by the Canadian Food Inspection Agency (Registration no. 4708) on 11 March 1998.

**PI 633016. Phaseolus vulgaris L.**

Cultivar. "AC Mast"; W6 24302. AC Mast is a high-yielding navy bean cultivar with medium maturity. It has an upright plant type suitable for direct combine harvest. AC Mast has acceptable cooking/canning quality. It is resistant to races 1 and 15 of bean common mosaic virus.

**PI 633017. Phaseolus vulgaris L.**

Cultivar. "AC Darkid"; W6 24303. Pedigree - AC Darkid is derived from a cross of California Light Red Kidney and Montcalm. Released 08/28/1995. High-yielding dark red kidney cultivar maturing in mid-season in Ontario. Its main advantage are high yield potential and earlier maturity than presently recommended dark red kidney beans in Ontario. Seed has acceptable cooking/canning quality. AC Darkid is resistant to alpha and alpha Brazilian races of anthracnose and to races 1 and 15 of

BCMV.

**PI 633018. *Phaseolus vulgaris* L.**  
Cultivar. "AC Litekid"; W6 24304.

The following were developed by Shelby Baker, Coastal Plains Experiment Station, P.O. Box 748, Tifton, Georgia 31793, United States; Lloyd May, University of Georgia, Coastal Plain Experiment Station, 115 Coastal Way, Tifton, Georgia 31793-0748, United States; R.F. Davis, University of Georgia, Dept. of Plant Pathology, 2106 Miller Plant Sci. Bldg., Athens, Georgia 30602, United States. Received 03/24/2003.

**PI 633019. *Gossypium hirsutum* L.**  
Breeding. GA 96-211. GP-776. Pedigree - GA77-27/PD-3//GA88-92/3/M240/4/M120/5/LA887. Culmination of a recurrent selection program to introgress southern root-knot nematode (*Meloidogyne incognita*) resistance into elite upland cotton. M1240, M120, and LA887 were the root-knot resistant donor parents. Derived from bulk seed increase of an advanced generation plant selected for least root galling in an infested field, with the resistance subsequently verified in greenhouse, no-choice, challenge experiments and in field trials with and without nematicide. In addition to resistance to root-knot nematode, expresses tolerance to root-knot as measured by similar yields in plots fumigated and non-fumigated for control of root-knot.

The following were developed by Robert E. Allan, USDA-ARS, Dept. of Crop & Soil Science, 209 Johnson Hall, Pullman, Washington 99164, United States. Received 03/03/2003.

**PI 633020. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. ARS 95 711. Pedigree - Suweon 185 / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the C allele of Paha for club spike and a sib of NIL's having the c allele of Suweon 185 for common spikes. Paha is a soft white winter club cv. that was widely grown in USA-PNW during the 1970's. It has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for heading date, percent lodging, plant height, test wt., and spike number. Differs from Paha in grain yield (15% less), kernel wt. (25.0 vs 27.7 mg) and seeds/spike (65 vs 74). Similar to Paha for 13 of 14 quality traits but has higher flour absorption (51.9 vs 50.6).

**PI 633021. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. ARS 95 712. Pedigree - Suweon 185 / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the C allele of Paha for club spike and a sib of NIL's having the c allele of Suweon 185 for common spikes. Paha is a soft white winter club cv. that was widely grown in USA-PNW during the 1970's. It has excellent club wheat quality. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for heading date, percent lodging, plant height, grain yield, test wt., kernel wt., spike number, and seeds/spike. Similar to Paha for 12 of 13 quality traits differing only for flour absorption (51.9 vs 50.6).

**PI 633022. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. ARS 95 713. Pedigree - Suweon 185 / 7\* Paha. A BC6

near-isoline (NIL) of Paha (CI 14485) having the c allele of Suweon 185 for common spike and a sib of NIL's having the C allele of Paha for club spikes. Paha is a soft white winter club cv. that was widely grown in USA-PNW during the 1970's. It has excellent club wheat quality. Similar in appearance to Paha except has fusiform vs. awnletted, red chaff club spikes. Like Paha for percent lodging, grain yield, test wt., kernel wt., spike no. while differing for plant ht. (101 vs 95 cm), heading date (154 vs 156d), and seeds/spike (59 vs 74). Similar to Paha for 13 of 13 quality traits.

**PI 633023. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 95 714. Pedigree - Suweon 185 / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the c allele of Suweon 185 for common spike and a sib of NIL's having the C allele of Paha for club spike. Paha is a soft white winter club cv. that was widely grown in USA-PNW during the 1970's. It has excellent club wheat quality. Similar in appearance to Paha except it has fusiform vs. awnletted, red chaff club spikes. Like Paha for percent lodging, grain yield, test wt., kernel wt., spike no., while differing for plant ht. (100 vs 95 cm), heading date (153 vs 156 d), and seeds/spike (59 vs 74). Like Paha for 12 of 13 quality traits while having higher flour yield (74 vs. 73.4%).

**PI 633024. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 95 716. Pedigree - Suweon 185 / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the c allele of Suweon 185 for common spike and a sib of NIL's having the C allele of Paha for club spike. Paha is a soft white winter club cv. that was widely grown in USA-PNW during the 1970's. It has excellent club wheat quality. Similar in appearance to Paha except it has fusiform vs. awnletted, red chaff club spikes. Like Paha for percent lodging, grain yield, test wt., kernel wt., spike no., while differing for plant ht. (101 vs 95 cm), heading date (153 vs 156 d), and seeds/spike (57 vs 74). Like Paha for 12 of 13 quality traits but has greater kernel hardness (23.5 vs 18.3).

**PI 633025. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 95 726. Pedigree - Suweon 185 / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the c allele of Suweon 185 for common spikes and a sib of NIL's having the C allele of Paha for club spike. Paha is a soft white winter club cv. that was widely grown in USA-PNW during the 1970's. It has excellent club wheat quality. Similar in appearance to Paha except it has fusiform vs. awnletted, red chaff club spikes. Like Paha for grain yield, test wt., kernel wt., spike no., while differing for plant ht. (103 vs 95 cm), percent lodging (44 vs 29%), heading date (154 vs 156 d), and seeds/spike (61 vs 74). Like Paha for 9 of 13 quality traits and differing for kernel hardness (22.7 vs 18.3), flour yield (75.1 vs 73.4%), milling score (93.8 vs 90.5) and sponge cake score (69 vs 73).

**PI 633026. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 96 659. Pedigree - Early Blackhull / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the c allele of Early Blackhull for common spike and a sib of NIL's having the C allele of Paha for club spike. Paha is a soft white winter club cv. having excellent quality that was widely grown in USA-PNW during the 1970's. The NIL is similar in appearance to Paha except it has fusiform spike vs awnletted, red chaff, club spike. Like Paha for plant ht., percent

lodging, heading date, grain yield, test wt., and spike no. Differs from Paha for kernel wt. (35.4 vs 31.1 mg) and seeds/spike (64.8 vs 78.0). Similar to Paha for 10 of 13 quality traits. In 1 of 2 seasons, NIL had higher flour protein, higher absorption and strong mixing type than Paha.

**PI 633027. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 96 660. Pedigree - Early Blackhull / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the c allele of Early Blackhull for common spikes and a sib of NIL's having the C allele of Paha for club spike. Paha is a soft white winter club cv. having excellent quality that was widely grown in USA-PNW during the 1970's. The NIL is similar in appearance to Paha except has fusiform spike vs. awnletted, red chaff, club spike. Like Paha for plant ht., percent lodging, heading date, grain yield, test wt., and spike no. Differs from Paha for kernel wt. (35.5 vs 31.1 mg) and seeds/spike (66.9 vs 78.0). Similar to Paha for 11 of 13 quality traits. In 1 of 2 seasons, NIL had higher flour protein and lower cake score than Paha.

**PI 633028. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 96 662. Pedigree - Early Blackhull / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the C allele of Paha for club spike and a sib of NILs having the c allele of Early Blackhull for common spike. Paha is a soft white winter club cv. having excellent quality that was widely grown in USA-PNW during the 1970's. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for plant ht., percent lodging, heading date, grain yield, test wt., kernel wt., spike no., and seeds/spike. Similar to Paha for 11 of 13 quality traits. In 1 of 2 seasons, NIL had lower ash, stronger mixing type and lower sponge cake volume than Paha.

**PI 633029. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 96 663. Pedigree - Early Blackhull / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the C allele of Paha for club spike and a sib of NILs having the c allele of Blackhull for common spike. Paha is a soft white winter club cv. having excellent quality that was widely grown in USA-PNW during the 1970's. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for plant ht., heading date, grain yield, test wt., kernel wt., spike no., and seeds/spike. Differs for percent lodging (25 vs 44%). Similar to Paha for 9 of 13 quality traits. In 1 of 2 seasons, NIL had lower ash, higher absorption, stronger mixing type and lower cookie diameter than Paha.

**PI 633030. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 96 665. Pedigree - Early Blackhull / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the c allele of Early Blackhull for common spike and a sib of NIL's having the C allele of Paha for club spikes. Paha is a soft white winter club having excellent quality that was widely grown in USA-PNW during the 1970's. The NIL is similar in appearance to Paha except has fusiform spike vs. awnletted, red chaff, club spike. Like Paha for plant ht., percent lodging, heading date, grain yield, test wt., and spike no. Differs from Paha for kernel wt. (36.1 vs 31.1 mg) and seeds/spike (67.5 vs 78.0). Similar to Paha for 11 of 13 quality traits. Overall lower kernel

hardness than Paha and higher mixing type in 1 of 2 seasons.

**PI 633031. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 96 666. Pedigree - Early Blackhull / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the c allele of Early Blackhull for common spike and a sib of NIL's having the C allele of Paha for club spikes. Paha is a soft white winter club cv. having excellent quality that was widely grown in USA-PNW during the 1970's. The NIL is similar in appearance to Paha except has fusiform spike vs. awnletted, red chaff, club spike. Like Paha for plant ht., percent lodging, heading date, grain yield, test wt., and spike no. Differs from Paha for kernel wt. (34.7 vs 31.1 mg) and seeds/spike (70.1 vs 78.0). Similar to Paha for 11 of 13 quality traits. Higher overall cookie diameter and higher top grain cookie score in 1 of 2 seasons compared to Paha.

**PI 633032. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 96 667. Pedigree - Early Blackhull / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the C allele of Paha for club spike and a sib of NILs having the c allele of Early Blackhull for common spike. Paha is a soft white winter club cv. having excellent quality that was widely grown in USA-PNW during the 1970's. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for plant ht., percent lodging date, grain yield, test wt., kernel wt., spike no., and seeds/spike. Similar to Paha for 12 of 13 quality traits. In 1 of 2 seasons the NIL had stronger mixing type than Paha.

**PI 633033. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ARS 96 668. Pedigree - Early Blackhull / 7\* Paha. A BC6 near-isoline (NIL) of Paha (CI 14485) having the C allele of Paha for club spike and a sib of NILs having the c allele of Early Blackhull for common spike. Paha is a soft white winter club cv. having excellent quality that was widely grown in USA-PNW during the 1970's. The NIL resembles Paha having awnletted, compact, red chaff spikes. Like Paha for plant ht., heading date, grain yield, test wt., spike no. and seeds/spike while differing for percent lodging (28 vs 44%). Similar to Paha for 11 of 13 quality traits. In 1 of 2 seasons the NIL had higher absorption and stronger mixing type than Paha.

The following were developed by Donald R. Egolf, U.S. National Arboretum, USDA, ARS, 3501 New York Avenue, N.E., Washington, District of Columbia 20002, United States. Donated by Margaret Pooler, USDA, ARS, U.S. National Arboretum, 3501 New York Avenue, NE, Washington, District of Columbia 20002, United States. Received 12/08/2003.

**PI 633034. *Lagerstroemia hybrid***

Cultivar. "ARAPAHO"; NA68972. Pedigree - Hybrid selection from (L. Tuscarora x (L. indica Red x L. indica Carolina Beauty)) x (L. limii x L. indica Asuka dwarf seedling). Released 07/18/2003. Tree-type crapemyrtle blooms with intense red flowers in mid summer, exhibits outstanding field tolerance to powdery mildew, and has light tan exfoliating bark. This cv. and related cv. Cheyenne are the first crapemyrtle cvs. that contain a combination of genes from three species. *Lagerstroemia indica*, *L. fauriei*, and *L. limii*. Relatively fast-growing

multi-stemmed crapemyrtle cv. with an upright, broad vase-shaped habit. Reaches a height of 6 meters and a width of 3 meters after 13 yrs. of growth in Washington, D.C. and is expected reach 8 meters or more at maturity. Medium red flowers appear in mid summer and persist until frost. Flowers and the glossy dark green foliage are highly tolerant of powdery mildew. Well suited for use as a specimen plant, as a street or highway tree, or in mass plantings in public parks. Adaptable to the same cultural conditions as other crapemyrtle cvs. and will thrive in full sun in a good heavy loam soil with a pH of 5.0-6.5. Plants.

**PI 633035. Lagerstroemia hybrid**

Cultivar. "CHEYENNE"; NA68973. Pedigree - Hybrid selection from [(L. Tuscarora x (L. indica Red x L. indica Carolina Beauty)) x (L. limii x L. indica Asuka dwarf hybrid)] x [(L. Tuscarora x (L. indica Red x L. indica Carolina Beauty)) x (L. limii x L. indica Asuka dwarf hybrid)]. Released 07/18/2003. Shrub-type crapemyrtle blooms with intense red flowers in mid summer, exhibits light reddish tan exfoliating bark, and has excellent field tolerance to powdery mildew. This cv. and the related cv. Arapaho are the first crapemyrtle cvs. that contain a combination of genes from three species: Lagerstroemia indica, L. fauriei, and L. linii. Multi-stemmed with a compact rounded habit. Reached a height of 2.5 meters and a width of 2.5 meters after 12 yrs. of growth in Washington, D.C. Bright red flowers appear in mid summer and persist until frost. Flowers and the glossy dark green foliage are highly tolerant of powdery mildew. Well suited for use as a specimen plant, in a shrub border or informal hedge, or in mass plantings in public spaces. Adaptable to the same cultural conditions as other crapemyrtle cvs. and will thrive in full sun in a good heavy loam soil with a pH of 5.0-6.5. Plants are propagated readily from softwood, semi-hardwood, hardwood, or root cuttings.

The following were developed by Mark Uebersax, Michigan State University, 135 Food Science Building, East Lansing, Michigan 48824-1224, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824-1325, United States; Jim D. Kelly, Michigan State University, Department of Crop & Soil Science, 370 Plant & Soil Sci. Bldg. MSU, East Lansing, Michigan 48824-1325, United States; Gregory M. Varner, Dry Edible Bean Research, Advisory Board, 3066 S. Thomas Road, Saginaw, Michigan 48603, United States; J. Taylor, Michigan State University, Dept. of Crop and Soil Sci., East Lansing, Michigan 48824, United States; M. Ender, Michigan State University, Dept. of Crop and Soil Sciences, East Lansing, Michigan 48824, United States. Received 04/02/2003.

**PI 633036. Phaseolus vulgaris L.**

Cultivar. "SEAHAWK"; SEAHAWK NAVY BEAN; 94N108. PVP 200300283; CV-210. Pedigree - Bunsii / Huron. Tested extensively for yield and agronomic traits for six seasons (1997-2002) over 31 locations. Yielded over 3000 kg/ha in test sites primarily in Michigan. In the absence of disease, produced yields in excess of 4800 cwt/acre, and is suited to direct harvest. Exhibits a type-IIb, indeterminate growth habit averaging 46 cm in height combined with moderate resistance to lodging. Flower white and blooms 45 days after planting. Mid-season variety maturing 97 days after planting, ranging from 90 to 101 days depending on season and location. Resistant to bean common mosaic virus, white mold and to races 7 and 65 of anthracnose but is susceptible to common bacterial blight and rust. Large, white navy bean seed averaging 25 g/100 seed and is slightly

larger in size, shape and color. In canning trials, exhibited excellent canning quality. Released as a pure line variety and is uniform and stable within commercially acceptable limits for seed type and purity of navy bean cultivars.

The following were developed by J. Paul Murphy, North Carolina State University, Dept. of Crop Science, Box 7629, Raleigh, North Carolina 27695-7629, United States; Daryl T. Bowman, North Carolina State University, Department of Crop Science, Box 8604, Raleigh, North Carolina 27695-8604, United States; Steven Leath, USDA, ARS, North Carolina State University, Dept. of Plant Pathology, Raleigh, North Carolina 27695, United States; R.A. Navarro, North Carolina State University, North Carolina Agric. Exp. Station, Dept. of Crop Science, Raleigh, North Carolina 27695-7629, United States; M.O. Fountain, North Carolina State University, Dept. of Crop Science, Raleigh, North Carolina 27695-7631, United States; P.R. Weisz, North Carolina State University, Dept. of Crop Science, Raleigh, North Carolina 27695-7629, United States; L.G. Ambrose, Beaufort Co. CES, 155 Airport Road, Washington, North Carolina 27889, United States; M.H. Pate, MidState Mills, Inc., P.O. Box 350, Newton, North Carolina 28658, United States. Received 03/31/2003.

**PI 633037. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "NC-NEUSE"; NC 96-13156. PVP 200400303; CV-952. Pedigree - Coker 86-29//Stella/CHD 756-80/3/Coker 9907. Released 2003. Soft red winter wheat. Full-season maturity with good test weight. Awnletted head. Semi-dwarf stature. Adapted to wheat-producing regions of North Carolina, and northern Georgia. Resistant to naturally occurring powdery mildew and leaf rust populations in North Carolina through 2002. Postulated to contain Lr 9, Lr 10, and Lr 11. Exhibits low levels of field infestation by Hessian fly biotypes L and D. Good flour yield, low AWRC. Good cookie spread, weak gluten.

The following were developed by Crites Moscow Growers, Inc., United States. Received 04/15/2003.

**PI 633038 PVPO. *Pisum sativum* L.**

Cultivar. "MARIAS". PVP 200300160.

The following were developed by South Dakota Agricultural Experiment Station, Brookings, South Dakota, United States. Received 04/15/2003.

**PI 633039 PVPO. *Glycine max* (L.) Merr.**

Cultivar. "SPINK". PVP 200300164.

**PI 633040 PVPO. *Glycine max* (L.) Merr.**

Cultivar. "SD1081RR". PVP 200300165.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 04/15/2003.

**PI 633041 PVPO. *Arachis hypogaea* L.**

Cultivar. "TAMRUN OL 02". PVP 200300170.

The following were developed by DLF-Jenks, United States. Received 04/15/2003.

**PI 633042 PVPO. Festuca arundinacea** Schreb.  
Cultivar. "SOUTHERN COMFORT". PVP 200300173.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 04/15/2003.

**PI 633043 PVPO. Festuca arundinacea** Schreb.  
Cultivar. "BE-1". PVP 200300176.

The following were developed by Florida Agr. Exp. Sta., Ona, Florida, United States. Received 04/15/2003.

**PI 633044 PVPO. Arachis hypogaea** L.  
Cultivar. "ANDRU II". PVP 200300179.

The following were developed by Syngenta Seeds, Inc., United States. Received 04/15/2003.

**PI 633045 PVPO. Pisum sativum** L.  
Cultivar. "FP2259". PVP 200300203.

The following were developed by Florida Agr. Exp. Sta., Ona, Florida, United States. Received 04/15/2003.

**PI 633046 PVPO. Arachis hypogaea** L.  
Cultivar. "CARVER". PVP 200300204.

**PI 633047 PVPO. Arachis hypogaea** L.  
Cultivar. "DP-1". PVP 200300206.

**PI 633048 PVPO. Arachis hypogaea** L.  
Cultivar. "HULL". PVP 200300207.

The following were developed by Tadesse Mebrahtu, Virginia State University, P.O. Box 9061, Petersburg, Virginia 23806, United States; T. Scott Abney, Purdue University, Department of Botany and Plt. Path., Lilly Hall of Life Sciences Bldg., West Lafayette, Indiana 47907, United States; Thomas E. Devine, USDA, ARS, Sustainable Agricultural Systems Laboratory, Building 001, BARC-West, Beltsville, Maryland 20705-2350, United States; Pat Donald, USDA-ARS, 605 Airways Blvd, Jackson, Tennessee 38301, United States. Received 04/15/2003.

**PI 633049. Glycine max** (L.) Merr.  
Cultivar. Pureline. "ASMARA"; VS96-239. PVP 200300208; CV-470. Pedigree - PI 417288 x (T135 x PI 83945-4). Released 03/13/2003. Large seeded cultivar intended for use as a vegetable soybean. Maturity group VI. Two-year average green pod yield of 22,082 kg ha<sup>-1</sup>. The green bean had 43.0% protein, 39.6 mg/g of sucrose, and 9.2% oil with 43.3% of the oil as oleic acid. Produced a mature seed yield of 2628 kg ha<sup>-1</sup> averaged

over two years and locations. Seed had 43.1% protein and 12.0% oil with 22.9% as oleic acid. The average seed size from both locations was 22 g per 100 seeds. Resistant to seed shattering and has white flowers and tawny pubescence. Seeds have yellow seed coats and buff hila.

Determinate growth habit with plants 54 cm in height. Susceptible to races 3 and 14 of the soybean cyst nematode and resistant to race 2 of the phytophthora root rot pathogen and susceptible to race 33. Susceptible to bacterial pustule and mildly susceptible to sudden death syndrome in southern Indiana.

The following were developed by A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 04/15/2003.

**PI 633050. *Poa pratensis* L.**

Cultivar. "EXCURSION". CV-82; PVP 200300210. Pedigree - Apomictic, single-plant selection from Midnight/Limousine. Dark green genetic color which is retained in winter. Good resistance to close mowing (25 mm or lower), good summer density, wear tolerance, and shear strength/traction (an important parameter for sports turf). Performs well nationwide in overall turf quality but does particularly well in the Transition Zone, Great Plains, and Midwestern states. Resistant to leafspot (*Drechslera poae*) disease and has good resistance to summer patch (*Magnaporthe poae*), brown patch (*Rhizoctonia solani*), and encroachment of annual bluegrass (*P. annua*).

The following were developed by D&PL Technology Holding Corp., United States. Received 04/15/2003.

**PI 633051 PVPO. *Glycine max* (L.) Merr.**

Cultivar. "3186004"; DPX 4446 RR. PVP 200300211.

The following were collected by Geza Kosa, A Magyar Tudomanyos Akademia, Okologiai es Botanikai Kutatointezetenek, Botanikus Kertje, Vacratot, Pest H-2163, Hungary. Donated by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 07/16/1993.

**PI 633052. *Alyssum alyssoides* (L.) L.**

Wild. No. 30; Ames 21210. Collected in Hungary. Along north coast of Lake Balaton area, Xeric. Thermophilous bush and oakwood near Vorosbereny. Magyarorszag.

The following were collected by Krystyna Dabrowska, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Maria Franszczak-Byc, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Ryszard Sawicki, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Irena Stropek, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland. Donated by Hortus Botanicus, Universitatis Mariae Curie-Sklodowska, UL. Slawinkowska 3, Lublin, Lublin 20-818, Poland. Received 05/03/1995.

**PI 633053. *Alyssum alyssoides* (L.) L.**

Wild. Index Seminum 2430; Ames 22453. Collected in Poland. Kazimierz n/Wisla, Pulawy.

The following were collected by Krystyna Dabrowska, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland; Maria Fraszczak-Byc, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland; Ryszard Sawicki, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland; Malgorzata Rozycka, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland. Donated by Hortus Botanicus, Universitatis Mariae Curie-Skłodowska, UL. Sławinkowska 3, Lublin, Lublin 20-818, Poland. Received 08/03/1995.

**PI 633054. *Alyssum alyssoides* (L.) L.**

Wild. Index Seminum #2855; Ames 22570. Collected 1993 in Lublin, Poland. Dabrowa, Lublin.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633055. *Alyssum dasycarpum* var. *minus* Bornm. ex T. R. Dudley**

Wild. 13-3715-75; Ames 21256. Collected in Iran. Kondor, near Karadj, N. Iran.

**PI 633056. *Alyssum flahaultianum* Emb.**

Wild. 15-2184-74; Ames 21258. Collected in Morocco. Latitude 31 deg. N. Longitude 8 deg. W. Elevation 3500 m. Jbel Anggour, Gr. Atlas, Morocco.

**PI 633057. *Alyssum granatense* Boiss. & Reut.**

Wild. 16-0877-66; Ames 21259. Collected in Spain. Latitude 40 deg. N. Longitude 4 deg. W. Sandy soil near Madrid city, C. Spain.

The following were collected by V.N. Chramzov. Donated by Hortus Botanicus Academiae, Silvotechnicae, St. Petersburg, Leningrad, Russian Federation. Received 02/03/1994.

**PI 633058. *Alyssum lenense* Adams**

Wild. 2827; Ames 21905. Collected 1991 in Mongolia.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633059. *Alyssum linifolium* Stephan ex Willd.**

Wild. 19-0893-66; Ames 21262. Collected in Spain. Latitude 38 deg. N. Longitude 1 deg. W. Limes near Jumilla, Murcia, S.E. Spain.

**PI 633060. *Alyssum minutum* Schltldl. ex DC.**

Wild. 21-1198-67; Ames 21264. Collected in Spain. Latitude 37 deg. N.

Longitude 3 deg. W. Elevation 2500 m. Schists, sierra Nevada, S. Spain.

The following were collected by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 06/21/1994.

**PI 633061. *Alyssum montanum* L.**

Wild. Index Seminum #22; Ames 22105. Collected 1993 in Hungary. On the slopes of Szarvashegy, by Mt. Naszaly, near Vac. Dry thermophilous oakwood. Steep, southern exposed slopes.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633062. *Alyssum nebrodense* Tineo**

Wild. 24-6950-85; Ames 21267. Collected in Italy. Pastures, San Salvatore, Madonia, N. Sicily, Italy.

The following were collected by Armando De Jesus Machado, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal; Jose Loureiro Martins, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal; Andre Dos Anjos Da Serra, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal. Donated by Goncalo Sampaio, Instituto de Botanica, Universidade Do Porto, 1191 Rua do Campo Alegre, Porto, Porto 4100, Portugal. Received 08/23/1993.

**PI 633063. *Alyssum simplex* Rudolphi**

No. 97; 920505; Ames 21236. Collected in Portugal. S. Bartolomeu de Messines, Silves, Algarve.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633064. *Alyssum simplex* Rudolphi**

Wild. 32-1570-68; Ames 21273. Collected in Spain. Latitude 40 deg. N. Longitude 3 deg. W. Perales de Tajuna, Madrid, C. Spain.

**PI 633065. *Alyssum simplex* Rudolphi**

Wild. 33-3793-75; Ames 21274. Collected in Iran. Roadsides, Chalus, W. Tehran, Iran.

**PI 633066. *Alyssum stapfii* Vierh.**

Wild. 34-3774-75; Ames 21275. Collected in Iran. Kuhe Dasteh, at Karadj, Iran.

The following were collected by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 06/21/1994.

**PI 633067. *Alyssum tortuosum* Waldst. & Kit. ex Willd.**

Wild. Index seminum #23; Ames 22111. Collected 1993 in Hungary. Near Tatarszentgyorgy. Sand-steppes. In association with *Festucetum vaginatae-danubiale*.

The following were donated by Arboretum Novy Dvur, Musei Terrae Silesiae, Opava, North Moravia CZ 747 51, Czech Republic. Received 07/25/1994.

**PI 633068. *Alyssum wulfenianum* Schltldl.**

Cultivated. 100; Ames 22143. Pedigree - From Klagenfurt Garden, origin wild: Austria, Umgebung Villach/M-Karten, Arnoldstein, Gailitz, 578m.

The following were collected by Geza Kosa, A Magyar Tudomanyos Akademia, Okologiai es Botanikai Kutatointezetenek, Botanikus Kertje, Vacratot, Pest H-2163, Hungary. Donated by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 07/16/1993.

**PI 633069. *Berteroa incana* (L.) DC.**

Wild. No. 51; Ames 21212. Collected in Hungary. Limestone grassland (*Sedo-Festucetum dalmatica*) on the steep, south exposed rock ridge of Szarsomlyo hill above Nagyharsany. Magyarorszag.

The following were collected by D. Arndt, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 07/06/1994.

**PI 633070. *Berteroa incana* (L.) DC.**

Wild. Index Seminum #172; Ames 22124. Collected 1993 in Germany. Latitude 51 deg. 7' N. Longitude 12 deg. 18' E. Kaferhain.

The following were collected by H. Hubatsch, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; Kurt Hubatsch, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 07/06/1994.

**PI 633071. *Berteroa incana* (L.) DC.**

Wild. Index Seminum #173; Ames 22125. Collected 1993 in Germany. Leipzig-Mochau.

The following were collected by Hans Kohler, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 07/06/1994.

**PI 633072. *Berteroa incana* (L.) DC.**

Wild. Index Seminum #174; Ames 22126. Collected 1993 in Germany. Weibenfels.

The following were collected by Krystyna Dabrowska, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland; Maria Franszczak-Byc, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland; Ryszard Sawicki, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland; Malgorzata Rozycka, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland. Donated by Ogród Botaniczny, Uniwersytet Marii-Curie Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland. Received 06/12/1996.

**PI 633073. *Berteroa incana* (L.) DC.**

Wild. 2149; Ames 23026. Collected in Lublin, Poland. At Sławinek near Lublin.

The following were collected by Botanical Garden, University of Joensuu, P.O. Box 111, Joensuu, Pohjois-Karjala SF 80101, Finland. Received 06/30/1999.

**PI 633074. *Berteroa incana* (L.) DC.**

Wild. Index Seminum 78; Ames 25398. Collected 09/01/1997 in Karelia, Russian Federation. Latitude 61 deg. 42' N. Longitude 30 deg. 41' E. Yard in the center of town, Sortavala.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633075. *Brassica carinata* A. Braun**

WIR 4420; Ames 19180; Swahili. Collected 1989 in Tanzania.

**PI 633076. *Brassica carinata* A. Braun**

WIR 4325; Ames 19181. Collected 1989 in Kenya.

**PI 633077. *Brassica carinata* A. Braun**

WIR 4390; Ames 19182; R 2220. Collected 1989 in Canada.

**PI 633078. *Brassica carinata* A. Braun**

WIR 4404; Ames 19183; R 1923. Collected 1989 in Canada.

**PI 633079. *Brassica carinata* A. Braun**

WIR 4419; Ames 19184; Figiri. Collected 1989 in Tanzania.

The following were donated by Karl Hammer, Inst. für Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 12/07/1993.

**PI 633080. *Brassica carinata* A. Braun**

Cultivated. BRA 1028/79; Ames 21717. Collected in Zambia. Latitude 12 deg. 33' S. Longitude 28 deg. 14' E.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633081. *Brassica fruticulosa* Cirillo**

Wild. 95-4068-76; Ames 21301. Collected in Spain. Latitude 37 deg. N.  
Longitude 2 deg. W. Cultivated land, Vicar, Almeria, S.E. Spain.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Alpine Botanical Garden, "La Jaysinia", Station D'Ecologie Vegetale, Samoens, Haute-Savoie F-74340, France. Received 06/21/1996.

**PI 633082. *Brassica fruticulosa* Cirillo *subsp. fruticulosa***

BRA 1039/86; K 4486; Ames 23087.

The following were donated by The Plant Cell Research Institute, Inc., 6560 Trinity Court, Dublin, California 94568, United States. Received 03/18/1991.

**PI 633083. *Brassica juncea* (L.) Czern.**

BO-30/1; Ames 15646; CrGC-6. Genotype = BCbbcc. Phenotype = Rapid Cycling, Base Population.

**PI 633084. *Brassica juncea* (L.) Czern.**

BO-32/1; Ames 15647; CrGC-20. Genotype = Rlaabb. Phenotype = Rapid Cycling, Cytoplasmic Male Sterile.

**PI 633085. *Brassica juncea* (L.) Czern.**

BO-28/1; Ames 15648; CrGC-4. Genotype = ABaabb. Phenotype = Rapid Cycling, Base Population.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633086. *Brassica juncea* (L.) Czern.**

WIR 4190; Ames 19185; Yuzhanka. Collected 1989 in Russian Federation.

**PI 633087. *Brassica juncea* (L.) Czern.**

WIR 4345; Ames 19186; Donskaya 5. Collected 1987 in Russian Federation.

**PI 633088. *Brassica juncea* (L.) Czern.**

Donskaya 1185; WIR 4350; Ames 19187; Oktyabrskaya. Collected 1987 in Russian Federation.

**PI 633089. *Brassica juncea* (L.) Czern.**

WIR 4319; Ames 19188; Stepanyanka. Collected 1988 in Russian Federation.

**PI 633090. *Brassica juncea* (L.) Czern.**

WIR 4266; Ames 19189; Yubileinaya. Collected 1989 in Russian Federation.

**PI 633091. *Brassica juncea* (L.) Czern.**

WIR 4260; Ames 19190; Zarya. Collected 1985 in Russian Federation.

**PI 633092. *Brassica juncea* (L.) Czern.**

WIR 4304; Ames 19191; Skorspelka 2. Collected 1988 in Russian Federation.

**PI 633093. Brassica juncea** (L.) Czern.

WIR 4422; Ames 19192; VNIIMK 13. Collected 1988 in Russian Federation.

**PI 633094. Brassica juncea** (L.) Czern.

WIR 4348; Ames 19193; Kamyshinskaya 7. Collected 1985 in Russian Federation.

**PI 633095. Brassica juncea** (L.) Czern.

WIR 4191; Ames 19194; Skorospelka. Collected 1988 in Russian Federation

**PI 633096. Brassica juncea** (L.) Czern.

WIR 4193; Ames 19195; Zheltosemyannaya 230. Collected 1987 in Russian Federation.

The following were donated by Karl Hammer, Inst. fur Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 12/07/1993.

**PI 633097. Brassica juncea** (L.) Czern.

Cultivated. BRA 61/80; Ames 21719. Collected 1938 in Xizang, China. Latitude 29 deg. 15' N. Longitude 88 deg. 52' E.

The following were collected by P.F. Knowles, University of California, Dept. of Agronomy and Range Sciences, Davis, California 98230, United States. Donated by Paul H. Williams, University of Wisconsin, Department of Plant Pathology, Madison, Wisconsin 53706, United States. Received 06/08/1992.

**PI 633098. Brassica juncea** (L.) Czern.

"Raya D. 71"; Ames 21732. Collected in Punjab, India.

**PI 633099. Brassica juncea** (L.) Czern.

"Triesta"; Ames 21733. Collected in California, United States.

**PI 633100. Brassica juncea** (L.) Czern.

K-93; Ames 21741. Collected in Pakistan.

**PI 633101. Brassica juncea** (L.) Czern.

K-160; Ames 21743. Collected in Pakistan.

**PI 633102. Brassica juncea** (L.) Czern.

K-194; Ames 21744. Collected in Pakistan.

**PI 633103. Brassica juncea** (L.) Czern.

K-216; Ames 21745. Collected in Pakistan.

**PI 633104. Brassica juncea** (L.) Czern.

K-549; Ames 21747. Collected in Pakistan.

**PI 633105. Brassica juncea** (L.) Czern.

K-943; Ames 21748. Collected in Pakistan.

- PI 633106. *Brassica juncea* (L.) Czern.**  
K-738; Ames 21750. Collected in Pakistan.
- PI 633107. *Brassica juncea* (L.) Czern.**  
K-410; Ames 21752. Collected in Pakistan.
- PI 633108. *Brassica juncea* (L.) Czern.**  
K-870; Ames 21755. Collected in Pakistan.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

- PI 633109. *Brassica juncea* (L.) Czern.**  
Wild. CR 78/90; Ames 22961.
- PI 633110. *Brassica juncea* (L.) Czern.**  
Cultivar. "Bulharska"; CR 81/94; Ames 22963.
- PI 633111. *Brassica juncea* (L.) Czern.**  
Cultivar. "Stokl"; CR 118/90; Ames 22964.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

- PI 633112. *Brassica juncea* (L.) Czern.**  
Cultivated. BRA 1208/87; K 7300; Ames 23094. Collected 12/04/1986 in Santiago de Cuba, Cuba. From Farmer Luz Maria Gutierrez in Lagunita, Arroyo Seco (Mayari Holguin). Collected from farmer Luz Maria Gutierrez. Commercial seed from house garden.
- PI 633113. *Brassica juncea* (L.) Czern.**  
Cultivated. BRA 1209/87; K 6469; Ames 23095. Collected 07/27/1983 in Calabria, Italy. Salinella, 4 km W of Roccabernarda, Province Catanzaro. Leaf vegetable, old local type. Seed from harvest at a farm.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Institute for Plant Genetic Resources, Pyongyang, Korea, North. Received 06/21/1996.

- PI 633114. *Brassica juncea* (L.) Czern.**  
Cultivated. BRA 1284/91; K 7809; Ames 23100. Fully resistant to Black Rot (*Xanthomonas campestris*), this information is from Steffan Daebeler, Petoseed, Arroyo Grande, CA 93420, USA - 09/15/1993.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 06/05/1997.

- PI 633115. *Brassica juncea* (L.) Czern.**

Wild. 96S-114; Ames 23779. Collected 09/04/1996 in Mongolia. Latitude 48 deg. 10' N. Longitude 91 deg. 45' 21'' E. Elevation 1335 m. Buyant, experimental area about 10 km north of the aymag center, Hovd Aymag. Wide valley bottom that is currently being used for growing vegetables and making hay. Slope of 0%, aspect flat. Soils are alluvial and are coarse brown sandy loams.

The following were donated by Walter N. Koelz, USDA-Bureau of Plant Industry, Horticultural Crops Research Branch, Plant Introduction Section, Beltsville, Maryland 20705-2350, United States. Received 02/08/1948.

**PI 633116. Brassica juncea** (L.) Czern.

Separation from PI 173861; Ames 26112. Collected in Delhi, India.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633117. Brassica maurorum** Durieu

110-1966-71; Ames 21309. Collected in Algeria. Latitude 36 deg. N. Longitude 1 deg. W. Cultivated fields S. Oran, Algeria.

The following were donated by USDA, ARS, NERPIS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 09/21/1993.

**PI 633118. Brassica napus** L.

G 30114; Ames 21489; LEGEND.

**PI 633119. Brassica napus** L.

G 30113; Ames 21490; COLT.

The following were donated by Instytut Hodowli i Aklimatyzacji Roslin, Ogród Botaniczny, Ul. Jezdziecka 5, Bydgoszcz, Bydgoszcz 85-687, Poland. Received 06/16/1995.

**PI 633120. Brassica napus** L.

Cultivar. "BOLKO"; Ames 22547; 160058.

**PI 633121. Brassica napus** L.

Cultivar. "MAR"; Ames 22549; 160059.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633122. Brassica napus** L.

BRA 1168/85; K 5586; Ames 23093. Collected 1980 in Italy. zw. Pago Veiano u. S. Giorgio.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road,

Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Donated by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 10/10/1996.

**PI 633123. Brassica napus L.**

Cultivated. E94197; Ames 23232. Collected 09/14/1994 in Mongolia. Latitude 48 deg. 3' 56'' N. Longitude 104 deg. 36' E. Elevation 564 m. Small research area on the outskirts of Choibalsan City operated by the Ministry of Agriculture to test vegetables from throughout the world. The area is approx. 2 ha in area, fenced, and irrigated with water from the Herlen River. Soils are light brown, loamy river terrace soils with high gravel content. Both aspect and slope are horizontal. Ecological zone: grass steppe (cultivated river terrace). Disturbed agricultural area with *Achnatherum splendens* and *Chloris virgata* in field margins.

The following were donated by Swedish Seed Association -Svalov, Svalov, Malmohus, Sweden; USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633124. Brassica napus L.**

Uncertain. 3190; NU 51084; Ames 24226.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633125. Brassica napus L. var. napus**

WIR 4611; Ames 19197; Mar'janovskij. Collected 1991 in Ukraine.

**PI 633126. Brassica napus L. var. napus**

WIR 4522; Ames 19198; Vostochno-sibirskii. Collected 1989 in Russian Federation.

**PI 633127. Brassica napus L. var. napus**

WIR 4418; Ames 19199; Vinnickij 15/59. Collected 1988 in Ukraine.

**PI 633128. Brassica napus L. var. napus**

WIR 4292; Ames 19201; Nemercanskij 2268. Collected 1988 in Ukraine.

**PI 633129. Brassica napus L. var. napus**

WIR 4488; Ames 19202; Krasnodarskii. Collected 1988 in Russian Federation.

**PI 633130. Brassica napus L. var. napus**

WIR 4575; Ames 19203; Kubanskii 1. Collected 1991 in Russian Federation

**PI 633131. Brassica napus L. var. napus**

WIR 4612; Ames 19204; Evvin. Collected 1991 in Russian Federation.

**PI 633132. Brassica napus L. var. napus**

WIR 4613; Ames 19205; Kovalevskij. Collected 1991 in Ukraine.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

- PI 633133. Brassica napus L. var. napus**  
Cultivar. "Adonis"; CR 157/87a; Ames 22970.
- PI 633134. Brassica napus L. var. napus**  
Cultivar. "Annick"; CR 165/76a; Ames 22971.
- PI 633135. Brassica napus L. var. napus**  
Cultivar. "Aphid Resistant Rape"; CR 167/65a; Ames 22972.
- PI 633136. Brassica napus L. var. napus**  
Cultivar. "Olimpiade"; CR 813/81; Ames 22973.
- PI 633137. Brassica napus L. var. napus**  
Cultivar. "Maris Haplona"; CR 764/93a; Ames 22975.
- PI 633138. Brassica napus L. var. napus**  
Cultivar. "Ratona"; CR 879/83; Ames 22976.
- PI 633139. Brassica napus L. var. napus**  
Cultivar. "Valecovska"; CR 1029/86; Ames 22977.
- PI 633140. Brassica napus L. var. napus**  
Cultivar. "Velox"; CR 1034/80a; Ames 22978.
- PI 633141. Brassica napus L. var. napus**  
Cultivar. "Wesbell"; CR 1051/83; Ames 22979.

The following were collected by Hans Kohler, Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 08/03/1995.

- PI 633142. Brassica nigra (L.) W. D. J. Koch**  
Wild. Index Seminum #160; Ames 22555. Collected 1994 in Saxony-Anhalt, Germany.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

- PI 633143. Brassica nigra (L.) W. D. J. Koch**  
Cultivar. "Giebra"; CR 1200/90b; Ames 22980.
- PI 633144. Brassica nigra (L.) W. D. J. Koch**  
Cultivar. "Hneda z Danska"; CR 1201/90; Ames 22981.
- PI 633145. Brassica nigra (L.) W. D. J. Koch**  
Cultivar. "Rumanska"; CR 1205/90a; Ames 22982.

**PI 633146. Brassica nigra** (L.) W. D. J. Koch  
Cultivar. "Sizaja"; CR 1206/90a; Ames 22983.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633147. Brassica nigra** (L.) W. D. J. Koch  
BRA 331/77; K 1331; Ames 23085. Collected 1942 in Greece.  
Smila/Peloponnes.

**PI 633148. Brassica nigra** (L.) W. D. J. Koch  
Cultivated. BRA 1046/85; K 5574; Ames 23089. Collected 06/17/1980 in Italy. In the area around Rotondella (Basilicata). Leaves and young plants are cooked and eaten. Somewhat bitter and sharp like cima di rapa.

**PI 633149. Brassica nigra** (L.) W. D. J. Koch  
BRA 1163/86; K 6518; Ames 23091. Collected 1984 in Ethiopia. Albaso.

The following were donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633150. Brassica nigra** (L.) W. D. J. Koch  
Wild. 60-52A; NU 42986; Ames 24227. Collected 01/1998 in Israel.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland; Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States; Stelios Samaras, Center of Macedonia & Thrace, Greek Gene Bank, Thessaloniki, Macedonia 570 01, Greece. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/20/1999.

**PI 633151. Brassica nigra** (L.) W. D. J. Koch  
Wild. G073; Ames 25461. Collected 08/20/1999 in Ionian Islands, Greece. Latitude 38 deg. 43' 50'' N. Longitude 20 deg. 38' 44'' E. Elevation 720 m. Englouvi village from Xanthi Kourti (highland center of island).

The following were donated by The Plant Cell Research Institute, Inc., 6560 Trinity Court, Dublin, California 94568, United States. Received 03/18/1991.

**PI 633152. Brassica rapa** L.  
BO-26/1; Ames 15644; CrGC-1. Genotype = Aaa. Phenotype = Rapid Cycling, Base Population.

Unknown source. Received 08/10/1993.

**PI 633153. Brassica rapa** L.

Ames 21502; G 23106. Collected in France. Botanical Garden, Rouen, France.

The following were collected by P.F. Knowles, University of California, Dept. of Agronomy and Range Sciences, Davis, California 98230, United States. Donated by Paul H. Williams, University of Wisconsin, Department of Plant Pathology, Madison, Wisconsin 53706, United States. Received 06/08/1992.

- PI 633154. *Brassica rapa* L.  
K-408; Ames 21734. Collected in Pakistan.
- PI 633155. *Brassica rapa* L.  
K-568; Ames 21735. Collected in Pakistan.
- PI 633156. *Brassica rapa* L.  
K-592; Ames 21736. Collected in Pakistan.
- PI 633157. *Brassica rapa* L.  
K-648; Ames 21737. Collected in Pakistan.

The following were collected by P.F. Knowles, University of California, Dept. of Agronomy and Range Sciences, Davis, California 98230, United States. Donated by C.G. Williams, Ohio Agric. Exp. Station, Wooster, Ohio, United States. Received 06/08/1992.

- PI 633158. *Brassica rapa* L.  
K-945; Ames 21756. Collected in Pakistan.

The following were collected by P.F. Knowles, University of California, Dept. of Agronomy and Range Sciences, Davis, California 98230, United States. Donated by Paul H. Williams, University of Wisconsin, Department of Plant Pathology, Madison, Wisconsin 53706, United States. Received 06/08/1992.

- PI 633159. *Brassica rapa* L.  
"Su Weon"; Ames 21758. Collected in Korea, South.

The following were collected by Rothmaler, Institut für Pflanzengenetik und Kulturpflanzenforschung, Gatersleben, Saxony-Anhalt, Germany. Donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany; Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 04/29/1996.

- PI 633160. *Brassica rapa* L.  
Cultivated. BRA 77/78; CR 1476/87b; Ames 23076; Tsen-et-lee. Collected 1952 in China.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633161. Brassica rapa L.**

Cultivated. BRA 1228/87; K 6460; Broccoli di rapa precoce catalogna; Ames 23098. Collected 07/21/1983 in Calabria, Italy. Roggiano, 3 km. south of the town. Cosenza Province, Calabria. Local type. Seed from farm harvest.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland; Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 01/04/2000.

**PI 633162. Brassica rapa L.**

Cultivated. P026; POL 177035; Ames 25927. Collected 07/13/1999 in Lomza, Poland. Latitude 52 deg. 41' 39'' N. Longitude 22 deg. 33' 41'' E. Bujenka 30.

The following were donated by Swedish Seed Association -Svalov, Svalov, Malmohus, Sweden; USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633163. Brassica rapa subsp. campestris (L.) A. R. Clapham**

Uncertain. 102; NU 51085; Ames 24229.

**PI 633164. Brassica rapa subsp. campestris (L.) A. R. Clapham**

Uncertain. 105; NU 51086; Ames 24230.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany; Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 04/29/1996.

**PI 633165. Brassica rapa subsp. chinensis (L.) Hanelt**

Wild. BRA 117/77; CR 1475/92b; Ames 23075. Collected in China. Kanton, China.

The following were donated by M. Iizuka, Chiba University, Faculty of Horticulture, Matsudo, Chiba 271, Japan. Received 02/12/1990.

**PI 633166. Brassica rapa subsp. dichotoma (Roxb.) Hanelt**

2239; Ames 12765. Collected in Nepal.

The following were developed by Rick Luhman, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 01/08/2001.

**PI 633167. Brassica rapa subsp. dichotoma (Roxb.) Hanelt**

Ames 26164; Ames 9414; Ames 9410.

The following were collected by R Maly, Italy. Donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633168. *Brassica rapa* subsp. *oleifera* (DC.) Metzg.**  
Cultivated. BRA 38/79; Ames 23083. Collected 05/20/1950 in Italy.  
Calanna, Reggio Calabria Province, West side of the Aspromonte mountain ridge, South Italy.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633169. *Brassica rapa* subsp. *oleifera* (DC.) Metzg.**  
Cultivated. BRA 1286/89; K 7847; Ames 23101. Collected 03/29/1988 in Cuba. Isla de la Juventud (Isle of Youth), La Granjita. Probably leaf cabbage. Source from harvest seed.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633170. *Brassica rapa* L. subsp. *rapa***  
WIR 544; Ames 19206; Krasnoselskaya 29. Collected 1986 in Russian Federation.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633171. *Brassica rapa* L. subsp. *rapa***  
"Yubileinaya Zelenogolovaya"; WIR 602; Ames 19207; Jubilejnaja Zelenoglazaja.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633172. *Brassica rapa* L. subsp. *rapa***  
WIR 679; Ames 19208; Kuuziku. Collected 1985 in Estonia.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633173. *Brassica rapa* L. subsp. *rapa***  
"Sutton's Caledonian"; WIR 305; Ames 19209.

**PI 633174. *Brassica rapa* L. subsp. *rapa***

"Mestnaya Belaya Sladkaya"; WIR 562; Ames 19210; Mestnaja Belaja Sladkaja.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633175. Brassica rapa L. subsp. rapa**

WIR 499; Ames 19211; Vyshegorodskaya Uluchshennaya. Collected 1987 in Russian Federation.

**PI 633176. Brassica rapa L. subsp. rapa**

WIR 584; Ames 19212; Patria. Collected 1990 in Sweden.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44 Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633177. Brassica rapa L. subsp. rapa**

"Bangholm Otofte 9"; WIR 476; Ames 19213; Bangholm Otofte.

**PI 633178. Brassica rapa L. subsp. rapa**

"Vilgelmburgskaya 01550"; WIR 608; Ames 19214; Wilhelmburger.

**PI 633179. Brassica rapa L. subsp. rapa**

"Moskovskii"; WIR 1258; Ames 19216; Moskovskij.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633180. Brassica rapa L. subsp. rapa**

WIR 372; Ames 19217; Esti Naeris. Collected 1986 in Estonia.

The following were collected by Kevin Hendricksen, Peace Corps, San Manuel, Lempira 49887, Honduras. Received 08/25/1992.

**PI 633181. Brassica rapa L. subsp. rapa**

Ames 19366. Collected 03/1992 in Lempira, Honduras. Elevation 1500 m. Semi-wild medicinal herb and vegetable found most commonly growing or planted in corn and wheat fields. The leaves are eaten fried with eggs. Seeds used as medicine are ground and applied on cloth to neck and forehead to cure headaches, also whole seeds are eaten to relieve digestion irritation.

The following were donated by Myra Manoah, Ministry of Agriculture, The Volcani Center, The Israeli Gene Bank for Agricultural Crops, Bet Dagan, Central 50250, Israel. Received 03/01/1991.

**PI 633182. Brassica tournefortii Gouan**

E-11; 47-633; Ames 16058. Collected in France. 400 m. SW. of the office, HaBesor.

**PI 633183. *Brassica tournefortii* Gouan**

E-14; 47-635; Ames 16059. Collected in France.

The following were collected by Henri Besancon, Jardin Botanique de Bordeaux, Terrasse du Jardin Public, Place Bardineau, Bordeaux, Gironde 33000, France. Donated by Jardin Botanique, Terrasse du Jardin Public, Place Bardineau, Bordeaux, Gironde 33000, France. Received 05/01/2000.

**PI 633184. *Brassica tournefortii* Gouan**

Wild. Index Seminum 235; Ames 26042. Collected 04/1996 in Almeria, Spain . Latitude 36 deg. 58' N. Longitude 2 deg. 12' W. Nijar. Gray sand. Indigenous species of Spain.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633185. *Camelina laxa* C. A. Mey.**

Wild. 159-6287-83; Ames 21325. Collected in Turkey. Field borders, 80km S.W. Ankara, Turkey.

The following were collected by Geza Kosa, A Magyar Tudomanyos Akademia, Okologiai es Botanikai Kutatointezetenek, Botanikus Kertje, Vacratot, Pest H-2163, Hungary. Donated by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 07/16/1993.

**PI 633186. *Camelina microcarpa* Andrzej. ex DC.**

Wild. No. 61; Ames 21213. Collected in Hungary. Along north coast of Lake Balaton area, Xeric. Thermophilous bush and oakwood near Vorosbereny. Magyarorszag.

The following were collected by Krystyna Dabrowska, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Maria Franszczak-Byc, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Ryszard Sawicki, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Irena Stropek, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland. Donated by Hortus Botanicus, Universitatis Mariae Curie-Sklodowska, UL. Slawinkowska 3, Lublin, Lublin 20-818, Poland. Received 05/03/1995.

**PI 633187. *Camelina microcarpa* Andrzej. ex DC.**

Wild. Index Seminum 2468; Ames 22455. Collected in Poland. Tarnogora, Krasnystaw.

The following were collected by Krystyna Dabrowska, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland; Maria Franszczak-Byc, Ogród Botaniczny, Uniwersytetu Marii Curie-Sklodowskiej, ul. Slawinkowska 3, Lublin, Lublin 20-810, Poland;

Ryszard Sawicki, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland; Malgorzata Rozycka, Ogród Botaniczny, Uniwersytetu Marii Curie-Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland. Donated by Hortus Botanicus, Universitatis Mariae Curie-Skłodowska, UL. Sławinkowska 3, Lublin, Lublin 20-818, Poland. Received 08/03/1995.

**PI 633188. *Camelina microcarpa*** Andrzej. ex DC.  
Wild. Index Seminum #2916; Ames 22572. Collected 1993 in Chelm, Poland. Tarnogóra, Krasnystaw.

**PI 633189. *Camelina microcarpa*** Andrzej. ex DC.  
Wild. Index Seminum #2197; Ames 22573. Collected 1993 in Chelm, Poland. Ciechanki, Pojezierze Leczyńskie - Włodawskie.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genbank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

**PI 633190. *Camelina microcarpa*** Andrzej. ex DC.  
Wild. CR 12/95; Ames 22988.

The following were donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States; Metcalfe. Received 01/29/1998.

**PI 633191. *Camelina microcarpa*** Andrzej. ex DC.  
Uncertain. NU 60689; Ames 24245.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genbank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

**PI 633192. *Camelina sativa*** (L.) Crantz  
Wild. CR 476/65; Ames 22984; Pernice.

**PI 633193. *Camelina sativa*** (L.) Crantz  
Cultivated. CR 492/94a; Ames 22985.

**PI 633194. *Camelina sativa*** (L.) Crantz  
Wild. "Giessen Nr. 3"; CR 1674/90; Ames 22987.

The following were collected by L. Gebrehiwot, Institute for Agricultural Research, P.O. 2003, Addis Ababa, Shewa, Ethiopia. Received 01/29/1991.

**PI 633195. *Crambe abyssinica*** Hochst. ex R. E. Fr.  
Wild. Ames 14938. Collected in Ethiopia. Front of laboratory, Institute of Agricultural Research, Addis Ababa. Probably an escape from greenhouse or field planting.

The following were donated by Koert Lessman, College of Agriculture & Home Economics, Dept. of Agronomy and Horticulture, Box 30003, Las Cruces, New

Mexico 88003-0003, United States. Received 10/14/1991.

**PI 633196. *Crambe abyssinica*** Hochst. ex R. E. Fr.  
NM 85; Ames 18236. Pedigree - PI 393514 *C. abyssinica* from Krasnodar  
USSR.

The following were donated by Institut fur Pflanzengenetik und  
Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel,  
Mecklenburg-W.P. D-23999, Germany. Received 07/22/1993.

**PI 633197. *Crambe abyssinica*** Hochst. ex R. E. Fr.  
CR 1699; 902536; Ames 21216.

The following were donated by Institut fur Pflanzengenetik und  
Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben,  
Saxony-Anhalt D-06466, Germany; Institute for Tropical and Subtropical  
Agriculture, Research Station, Oberholz/Leipzig, Germany. Received  
06/21/1996.

**PI 633198. *Crambe abyssinica*** Hochst. ex R. E. Fr.  
CRA 8/75; K 2066; Ames 23112; C.D. 6619. Collected in Kenya.

The following were donated by C. Gomez Campo, Instituto Nacional de  
Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain.  
Received 08/23/1993.

**PI 633199. *Crambe filiformis*** Jacq.  
Wild. 210-1182-67; Ames 21331. Collected in Spain. Latitude 36 deg. N.  
Longitude 5 deg. W. Calcareous screes, Tajo Ronda, Malaga, S. Spain.

**PI 633200. *Crambe hispanica*** L.  
Wild. 214-4004-75; Ames 21334. Collected in Israel. S.W. Jerusalem,  
Israel.

**PI 633201. *Crambe kralikii*** Coss.  
Wild. 216-1104-67; Ames 21336. Collected in Morocco. Latitude 30 deg. N.  
Longitude 7 deg. W. S. Tazenakh, S. Morocco.

Unknown source. Received 08/10/1993.

**PI 633202. *Eruca sativa*** Mill.  
Ames 21504; G 2223. Collected in England, United Kingdom. Fr. Kath  
Hunter, Wheal Frances, Callestick, Truro, Cornwall, England.

The following were collected by P.F. Knowles, University of California, Dept.  
of Agronomy and Range Sciences, Davis, California 98230, United States.  
Donated by Paul H. Williams, University of Wisconsin, Department of Plant  
Pathology, Madison, Wisconsin 53706, United States. Received 06/08/1992.

**PI 633203. *Eruca sativa*** Mill.  
K-1027; Ames 21751. Collected in Pakistan.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

**PI 633204. *Eruca sativa* Mill.**  
Wild. CR 352/95; Ames 22991.

**PI 633205. *Eruca sativa* Mill.**  
Cultivated. CR 491/94; Ames 22992.

The following were collected by W Muller. Donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633206. *Eruca sativa* Mill.**  
Cultivated. ERU 13/78; K 4864; Ames 23122. Collected 1976 in Egypt.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633207. *Eruca sativa* Mill.**  
Cultivated. ERU 14/82; K 5535; Ames 23123. Collected 1980 in Italy. On the road to Carpino.

The following were collected by P. Hanelt, Institut fur Pflanzengenetik, und Kulturpflanzenforschung, Corrensstrape 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633208. *Eruca sativa* Mill.**  
ERU 21/84; K 6121; Ames 23124. Collected 1983 in Libya.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633209. *Eruca sativa* Mill.**  
ERU 22/84; K 6281; Ames 23125. Collected 1983 in Libya.

The following were collected by P. Hanelt, Institut fur Pflanzengenetik, und Kulturpflanzenforschung, Corrensstrape 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633210. *Eruca sativa* Mill.**  
Cultivated. ERU 28/89; K 7908; Zima cai; Ames 23126. Collected 07/22/1988 in China. Dali, NW Yunnan, Erhai-Becken(Basin) area. Collected at a market from Dali. Old local type, a specialilty of Dali.

The following were donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633211. *Eruca sativa* Mill.**

Wild. IE 6; NU 49549; Ames 24314. Collected 01/1998 in India.

**PI 633212. *Eruca sativa* Mill.**

Wild. IE 38; NU 49558; Ames 24315. Collected 01/1998 in India.

**PI 633213. *Eruca sativa* Mill.**

Wild. IE 68; NU 49566; Ames 24316. Collected 01/1998 in India.

**PI 633214. *Eruca sativa* Mill.**

Wild. IE 127; NU 49573; Ames 24317. Collected 01/1998 in India.

**PI 633215. *Eruca sativa* Mill.**

Wild. IE 129; NU 49575; Ames 24318. Collected 01/1998 in India.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland; Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States; Bassam Al-Safadi, Atomic Energy Commission, P.O. Box 6091, Damascus, Syria. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 11/10/1999.

**PI 633216. *Eruca sativa* Mill.**

Landrace. S035; Jarjeer; Ames 25784. Collected 07/27/1999 in Syria.

Latitude 36 deg. 11' 57'' N. Longitude 37 deg. 9' 10'' E. Elevation 0 m.

Bab Alfraj seed market, Aleppo. Used in salad.

The following were donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633217. *Eruca vesicaria* (L.) Cav.**

Wild. NU 43061; Ames 24322. Collected 01/1998 in Spain.

The following were donated by Suzanne Warwick, Agriculture Canada, K.W. Neatby Bldg., C.E.F., Ottawa, Ontario K1A 0C6, Canada. Received 08/27/1991.

**PI 633218. *Eruca vesicaria* (L.) Cav.**

Wild. BCN 3064; G 30195; Ames 24933. Collected in Canada.

The following were donated by Hector Gomez-Campo. Received 09/26/1991.

**PI 633219. *Eruca vesicaria* (L.) Cav.**

G 30249; Ames 24935; 3750-77.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633220. *Erucastrum virgatum* subsp. *pseudosinapis*** (Lange) Gomez-Campo Wild. 318-4116-76; Ames 21353. Collected in Spain. Latitude 37 deg. N. Longitude 2 deg. W. W.Pto. Lumbreras, Almeria, S.E. Spain.

Unknown source. Received 08/10/1993.

**PI 633221. *Erysimum asperum*** (Nutt.) DC. Ames 21503; G 25448. Collected in Canada. Spruce Woods Forest Reserve, Manitoba, Canada.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633222. *Erysimum aucherianum*** J. Gay Wild. 349-3772-75; Ames 21426. Collected in Iran. Roadside slopes between Karadj and Chalus, N. Iran.

**PI 633223. *Erysimum baeticum*** (Heywood) Polatschek Wild. 319-4245-76; Ames 21401. Collected in Spain. Latitude 37 deg. N. Longitude 2 deg. W. Rocky slopes, sierra Maria, Almeria, Spain.

Unknown source. Received 1993.

**PI 633224. *Erysimum cheiranthoides*** L. G 31750; Ames 24941. Collected in Canada.

The following were donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633225. *Erysimum cuspidatum*** (M. Bieb.) DC. Wild. 556; NU 42375; Ames 24344. Collected 01/1998 in Turkey.

The following were collected by Geza Kosa, A Magyar Tudomanyos Akademia, Okologiai es Botanikai Kutatointezetenek, Botanikus Kertje, Vacratot, Pest H-2163, Hungary. Donated by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 06/03/1992.

**PI 633226. *Erysimum diffusum*** Ehrh. No. 233; Ames 19131. Collected in Hungary. Sand steppes, Festucetum vaginatae-danubiale, near Tatar- Szentgyorgy, Kiskunsag. Part of Great Hungarian Plain between Duna, Danube and Tisza rivers.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633227. *Erysimum favargerii*** Polatschek  
Wild. 332-6548-84; Ames 21411. Collected in Spain. Dry pasturelands, Calar Mundo, Albacete, S.E. Spain.

**PI 633228. *Erysimum gramineum*** Pomel  
Wild. 336-4402-76; Ames 21415. Collected in Morocco. Latitude 33 deg. N. Longitude 5 deg. W. Pastures, Col du Zad, C. Morocco.

The following were collected by Pierre Brochu; Michel Andre. Donated by C. Picotte, Montreal Botanic Garden, Svc. Loisirs Development Communautaire, 4101 Rue Sherbrooke Est., Montreal, Quebec H1X 2B2, Canada. Received 04/22/1992.

**PI 633229. *Erysimum inconspicuum* var. *coarctatum*** (Fernald) Rossbach  
No. 437; Ames 19074. Collected in Quebec, Canada. Originally collected on Isle Niapisca, the Mingan Archipel, Quebec in 1986.

The following were collected by Armando De Jesus Machado, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal; Jose Loureiro Martins, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal; Andre Dos Anjos Da Serra, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal. Donated by Goncalo Sampaio, Instituto de Botanica, Universidade Do Porto, 1191 Rua do Campo Alegre, Porto, Porto 4100, Portugal. Received 08/23/1993.

**PI 633230. *Erysimum linifolium*** (Pers.) J. Gay  
No. 102; 920723; Ames 21245. Collected in Portugal. Portelo, Braganca, Tras-os-Montes (Alto Douro).

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633231. *Erysimum nevadense* subsp. *collisparsum*** (Jord.) P. W. Ball  
Wild. 325-6361-83; Ames 21404. Collected in Spain. Latitude 42 deg. N. Longitude 3 deg. E. Slopes, S. Pedro de Roda, Gerona, N.E. Spain.

**PI 633232. *Erysimum nevadense* subsp. *rondae*** (Polatschek) P. W. Ball  
Wild. 353-2172-72; Ames 21430. Collected in Spain. Latitude 37 deg. N. Longitude 5 deg. W. Sierra Cristobal, sierra Grazalema, Malaga, S. Spain.

The following were collected by Zoltan Kereszty, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Donated by Botanical Garden, Institute of Ecology and Botany, of the Hungarian Academy of Sciences, Vacratot, Pest H-2163, Hungary. Received 06/03/1992.

**PI 633233. *Erysimum odoratum* Ehrh.**

No. 235; Ames 19133. Collected in Hungary. Limestone grassland and zeric bush on the Domorkapu rock of Mecsek Mts.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633234. *Erysimum olympicum* Boiss.**

Wild. 348-7396-86; Ames 21425. Collected in Greece. Elevation 800 m. East side of the Olympus Mt., Greece.

**PI 633235. *Erysimum penyalarens* (Pau) Polatschek**

Wild. 350-7879-89; Ames 21427. Collected in Spain. Latitude 40 deg. N. Longitude 4 deg. W. Meadows, sierra Guadarrama, Madrid, C. Spain.

The following were collected by A. S. Barclay, USDA, ARS, Crops Research Division, Plant Industry Station, Beltsville, Maryland 20705-2350, United States. Donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633236. *Erysimum repandum* L.**

Wild. 3022; NU 48541; Ames 24351. Collected 01/1998 in Arizona, United States.

The following were collected by H. Ern. Donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633237. *Erysimum scabrum* DC.**

Wild. 334-5982-84; Ames 21413. Collected in Turkey.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633238. *Erysimum virgatum* Roth**

339-0441-68; Ames 21417. Collected in Denmark. Botanical Garden, Copenhagen, Denmark.

The following were collected by Markku Huttunen. Donated by Botanical Garden, University of Joensuu, P.O. Box 111, Joensuu, Pohjois-Karjala SF 80101, Finland. Received 09/08/1993.

**PI 633239. *Erysimum virgatum* Roth**

114; Ames 21465. Collected 09/08/1992 in Norway. Roadside waste place, Greipstad, Kvaloy, Tromso.

Unknown source. Received 1993.

**PI 633240. *Erysimum virgatum* Roth**  
G 31751; Ames 24944. Collected in Canada.

The following were collected by University de Neuchatel, Jardin Botanique, 22 Chemin di Chantemrie, Neuchatel, Neuchatel CH-2000, Switzerland. Donated by P. Kupfer, Jardin Botanique de l'Universite, Pertuis-du Sault 58, Neuchatel, Neuchatel CH-2000, Switzerland. Received 06/12/1995.

**PI 633241. *Hesperis matronalis* L.**  
Wild. Index Seminum 77; Ames 22479. Collected in Switzerland. Elevation 600 m. Foot of Jura Mountains.

The following were donated by Arboretum Novy Dvur, Musei Terrae Silesiae, Opava, North Moravia CZ 747 51, Czech Republic. Received 07/25/1994.

**PI 633242. *Hesperis sibirica* L.**  
Cultivated. 101; Ames 22144. Pedigree - From Oulu Garden, origin wild: Russia, Altai, Shebalino, 670-750m.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

**PI 633243. *Iberis amara* L.**  
Wild. CR 407/95; Ames 22993.

**PI 633244. *Isatis glauca* Aucher ex Boiss.**  
Wild. CR 1736/91a; Ames 22994.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633245. *Lepidium alluaudii* Maire**  
Wild. 418-1483-68; Ames 21377. Collected in Morocco. Latitude 30 deg. N. Longitude 7 deg. W. Near Tazenakh, S. of Great Atlas, Morocco.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/24/1999.

**PI 633246. *Lepidium apetalum* Willd.**  
Wild. 98HT-198; Ames 25326. Collected 09/05/1998 in Mongolia. Latitude 48 deg. 29' 26'' N. Longitude 110 deg. 22' 25'' E. Elevation 1097 m. Binder Sum, Henti Aimag. Gently rolling terrain in the Hurchin Gol Valley on east side of small, dry creek. Soils are stoney and well drained. 1% slope with a western aspect. Weedy species.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633247. *Lepidium bonariense* L.**

Wild. 419-3123-73; Ames 21378. Collected in Spain. Roadsides S. Juan Rambla, N.W. Tenerife Island, Spain.

The following were developed by Botanical Institute, Czechoslovak Academy of Science, Prague, Central Bohemia D-252 43, Czech Republic. Received 02/16/1990.

**PI 633248. *Lepidium campestre* (L.) R. Br.**

Wild. Ames 13179. Collected in Czechoslovakia. Elevation 280 m. Chrast and Sazavou - ruderal sites.

**PI 633249. *Lepidium campestre* (L.) R. Br.**

Wild. Ames 13180. Collected in Czechoslovakia. Elevation 400 m. Strazovske vrchy mts - roadbank sites in surroundings of Omastina village, NW from Uhrovec.

The following were collected by Hans Kohler, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; M. Krusche, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; H. Hubatsch, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; Kurt Hubatsch, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

**PI 633250. *Lepidium campestre* (L.) R. Br.**

Ames 15718. Collected in Germany. Leipzig, Sachsen, Germany.

The following were collected by H. Gocht; M. Krusche, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

**PI 633251. *Lepidium campestre* (L.) R. Br.**

Ames 15719. Collected in Germany. Leipzig-Connewitz, Sachsen, Germany.

The following were collected by Bernard Riebel, Jardin Botanique Universite Louis Pasteur, 28, Rue Goethe, Strasbourg-Cedex, Bas-Rhin F-67083, France; Christophe Gass, Jardin Botanique Universite Louis Pasteur, 28 Rue Goethe, Strasbourg-Cedex, Bas-Rhin F-67083, France; Frederic Tournay, Jardin Botanique Universite Louis Pasteur, 28 Rue Goethe, Strasbourg-Cedex, Bas-Rhin F-67083, France. Donated by Jardin Botanique Universite Louis Pasteur, 28 Rue Goethe, Strasbourg, Bas-Rhin F-67083, France. Received 05/03/1999.

**PI 633252. *Lepidium campestre* (L.) R. Br.**

Wild. Index Seminum 73; Ames 25257. Collected 1998 in Bas-Rhin, France. Latitude 48 deg. 32' N. Longitude 7 deg. 29' E. Elevation 175 m.

Molsheim.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633253. *Lepidium hirtum* subsp. *nebrodense* (Raf.) Thell.**

Wild. 429-6201-83; Ames 21388. Collected in Italy. Pasturelands in Madonia region, Sicily, Italy.

**PI 633254. *Lepidium perfoliatum* L.**

Wild. 432-0901-66; Ames 21391. Collected in Spain. Road embankments, c. Madrid city, C. Spain.

The following were collected by Hans Kohler, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

**PI 633255. *Lepidium ruderales* L.**

Ames 15721. Collected in Germany. WeiBenfels, Sachsen-Anhalt, Germany.

The following were collected by T. Kubala, Ogród Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland; M. Tarant, Hortus Botanicus, Universitatis Posnaniensis, Poznan, Poznan, Poland; M. Gorska-Zajaczkowska, Ogród Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland; Aleksander Lukasiewicz, Ogród Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland; R. Plackowski, Hortus Botanicus, Universitatis Posnaniensis, Poznan, Poznan, Poland; A. Smigla-Babula, Ogród Botaniczny UAM, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland. Donated by Ogród Botaniczny Uniwersytetu Im. Adama Mickiewicza, ul. Dabrowskiego 165, Poznan, Poznan 60-594, Poland. Received 04/10/1996.

**PI 633256. *Lepidium ruderales* L.**

Wild. Index Seminum 102; Ames 22801. Collected 1994 in Poland. Slawa Wlkp.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/23/1989.

**PI 633257. *Lepidium sativum* L.**

Cultivated. 11; Hab Rchad; Ames 10750. Collected 04/17/1989 in Morocco. Market in Settat.

The following were donated by M. Iizuka, Chiba University, Faculty of Horticulture, Matsudo, Chiba 271, Japan. Received 02/12/1990.

**PI 633258. *Lepidium sativum* L.**

2458; Ames 12790. Collected in Nepal.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633259. *Lepidium sativum* L.**

Cultivated. LEP 28/83; K 5928; Ames 23135. Collected 08/07/1982 in Georgia. Simoneti West Kutaisi (Rayon Terdzola), Imeretien. Regularly cultivated in the garden.

**PI 633260. *Lepidium sativum* L.**

Cultivated. LEP 39/87; K 7162; Ames 23136. Collected 06/18/1986 in Iraq. Baiji, at a market.

**PI 633261. *Lepidium sativum* L.**

Cultivated. LEP 54/93; K 7129; Ames 23137. Collected 08/04/1986 in Georgia. Koskaskeli, 13 km south from Duseti, Rayon Duseti, historic Province of Mtiuleti. Local type. Used freshly harvested.

The following were donated by Institute of Introduction and Plant Genetic Resources, K. Malkov Agric. Exp. Stat., Sadovo, Plovdiv 4122, Bulgaria. Received 05/27/1998.

**PI 633262. *Lepidium sativum* L.**

ISN 378; CV: LOCAL; Ames 24945.

**PI 633263. *Lepidium sativum* L.**

ISN 377; CV: SN-1; Ames 24946.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland; Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States; Bassam Al-Safadi, Atomic Energy Commission, P.O. Box 6091, Damascus, Syria. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 11/10/1999.

**PI 633264. *Lepidium sativum* L.**

Landrace. S012; Ames 25785. Collected 07/27/1999 in Syria. Latitude 36 deg. 11' 57" N. Longitude 37 deg. 9' 10" E. Elevation 0 m. Bab Alfraj seed market, Aleppo. Used like parsley.

The following were donated by A.T. Whittemore, Missouri Botanical Garden, Biology Department, P.O. Box 299, St. Louis, Missouri 63166-0299, United States. Received 04/28/1992.

**PI 633265. *Lepidium* sp.**

Ames 19090. Collected 07/20/1991 in Kazakhstan. Government store, Alma Ata Market, Kazakh.

**PI 633266. *Lepidium* sp.**

Ames 19091. Collected 07/20/1991 in Kazakhstan. Private vendor, Alma Ata Market, Kazakh.

The following were collected by David Spooner, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706-1590, United States. Received 03/20/1995.

**PI 633267. *Lepidium* sp.**

Cultivated. 7011; Ames 22391. Collected in Nepal. Purchased from local seed store cooperative, town of Pokhara, Zone Gankakia, District Kaski.

The following were donated by Hector Gomez-Campo. Received 09/26/1991.

**PI 633268. *Lepidium spinosum* Ard.**

G 30253; Ames 24947; 6229-83.

The following were donated by C. Gomez Campo, Instituto Nacional de Investigaciones, Agrarias, Jose Abascal 56, Madrid, Madrid 28003, Spain. Received 08/23/1993.

**PI 633269. *Lepidium virginicum* L.**

Wild. 440-0350-69; Ames 21399. Collected in France. Latitude 43 deg. N. Longitude 1 deg. W. St. Jean Pied de Port. Pyrenees, S.W. France.

**PI 633270. *Lepidium virginicum* var. *pubescens* (Greene) Thell.**

Wild. 441-1722-69; Ames 21400. Collected in United States. Roadsides, Oakzantitas, San Diego, California, USA.

The following were donated by Ogród Botaniczny, Uniwersytet Marii-Curie Skłodowskiej, ul. Sławinkowska 3, Lublin, Lublin 20-810, Poland. Received 06/12/1996.

**PI 633271. *Matthiola longipetala* (Vent.) DC.**

Cultivated. 530; Ames 23029.

Unknown source. Received 03/13/1990.

**PI 633272. *Sinapis alba* L.**

8053a; Ames 12985. Collected in Nepal.

The following were collected by H. Hubatsch, Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; Kurt Hubatsch, Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

**PI 633273. *Sinapis alba* L.**

Ames 15733. Collected in Germany. Leipzig-Eutritzsch, Sachsen, Germany.

The following were donated by Myra Manoah, Ministry of Agriculture, The Volcani Center, The Israeli Gene Bank for Agricultural Crops, Bet Dagan, Central 50250, Israel. Received 03/01/1991.

- PI 633274. *Sinapis alba* L.**  
E-1; 47-623; Ames 15985. Collected 05/03/1989 in Israel. On W. side of Road No. 40, Gedera.
- PI 633275. *Sinapis alba* L.**  
E-2; 47-624; Ames 15986. Collected 05/03/1989 in Israel. On W. side of Road No. 40, Gedera.
- PI 633276. *Sinapis alba* L.**  
E-3; 47-625; Ames 15987. Collected 05/03/1989 in Israel. On W. side of Road No. 40, Gedera.
- PI 633277. *Sinapis alba* L.**  
E-25; 47-647; Ames 15988. Collected 05/21/1989 in Israel. On the Entrance, near road 90, Hawwat Eden.
- PI 633278. *Sinapis alba* L.**  
E-26; 47-648; Ames 15989. Collected 05/21/1989 in Israel. On the Entrance, near road 90, Hawwat Eden.
- PI 633279. *Sinapis alba* L.**  
E-28; 47-650; Ames 15990. Collected 05/21/1989 in Israel. On the Entrance, near road 90, Hawwat Eden.
- PI 633280. *Sinapis alba* L.**  
E-36; 47-659; Ames 15991. Collected 05/21/1989 in Israel. On the W. border of the Village, on road 669, Hefzi Bah.
- PI 633281. *Sinapis alba* L.**  
E-38; 47-661; Ames 15992. Collected 05/21/1989 in Israel. 3 Km. N., on the road side, no. 717, Nurit.
- PI 633282. *Sinapis alba* L.**  
E-41; 47-664; Ames 15993. Collected 05/21/1989 in Israel. On the Entrance to the Village, Kefar Yehezqel.
- PI 633283. *Sinapis alba* L.**  
E-43; 47-666; Ames 15994. Collected 05/21/1989 in Israel. On the Entrance to the Village, Kefar Yehezqel.
- PI 633284. *Sinapis alba* L.**  
E-61; 47-685; Ames 15995. Collected 05/21/1989 in Israel. Road side, on the hill, road no. 65, Ummel Fahm.
- PI 633285. *Sinapis alba* L.**  
E-690; 47-690; Ames 15996. Collected in Israel. 1.5 km N. of place, on road to Aaseret, Aaseret.
- PI 633286. *Sinapis alba* L.**  
E-88; 47-713; Ames 15997. Collected 05/22/1989 in Israel. 600 m. S. of the entrance from main road no. 383, Revadim.
- PI 633287. *Sinapis alba* L.**  
E-89; 47-714; Ames 15998. Collected 05/22/1989 in Israel. 600 m. S. of the entrance from main road no. 383, Revadim.

- PI 633288. *Sinapis alba* L.**  
E-90; 47-715; Ames 15999. Collected 05/22/1989 in Israel. On the E. entrance to the village on road nol 38, Zekharya.
- PI 633289. *Sinapis alba* L.**  
E-116; 47-740; Ames 16000. Collected 05/31/1989 in Israel. 2.5 Km. E. of the Village, near the bridge, Palmahim.
- PI 633290. *Sinapis alba* L.**  
E-117; 47-741; Ames 16001. Collected 05/31/1989 in Israel. 2.5 Km. E. of the Village, near the bridge, Palmahim.
- PI 633291. *Sinapis alba* L.**  
E-118; 47-742; Ames 16002. Collected 05/31/1989 in Israel. 2.5 Km. E. of the Village, near the bridge, Palmahim.
- PI 633292. *Sinapis alba* L.**  
E-135; 47-758; Ames 16003.
- PI 633293. *Sinapis alba* L.**  
E-138; 47-763; Ames 16004. Collected 06/01/1989 in Israel. 200 m. E. from X. Roads no. 44 and 424, Ramla.
- PI 633294. *Sinapis alba* L.**  
E-152; 47-777; Ames 16005. Collected 06/01/1989 in Israel. 200 m. N. of the Entrance to Tal Shahar, road 3, Tal-Shahar x. Road.
- PI 633295. *Sinapis alba* L.**  
Wild. E-157; 47-782; Ames 16006. Collected 06/01/1989 in Israel. 200 m. N. of the Entrance to Tal Shahar, road 3, Tal-Shahar x. Road.
- PI 633296. *Sinapis alba* L.**  
E-158; 47-783; Ames 16007. Collected 06/01/1989 in Israel. 200 m. N. of the Entrance to Tal Shahar, road 3, Tal-Shahar x. Road.
- PI 633297. *Sinapis alba* L.**  
E-158a; 47-784; Ames 16008. Collected 06/01/1989 in Israel. 200 m. N. of the Entrance to Tal Shahar, road 3, Tal-Shahar x. Road.
- PI 633298. *Sinapis alba* L.**  
E-167; 47-796; Ames 16009. Collected 06/05/1989 in Israel. On the X. Road, Sede Uzziyahu-Emunim, Sede Uzziyahu.
- PI 633299. *Sinapis alba* L.**  
Wild. E-168; 47-797; Ames 16010. Collected 06/05/1989 in Israel. On the X. Road, Sede Uzziyahu-Emunim, Sede Uzziyahu.
- PI 633300. *Sinapis alba* L.**  
E-169; 47-798; Ames 16011. Collected 06/05/1989 in Israel. On the X. Road, Sede Uzziyahu-Emunim, Sede Uzziyahu.
- PI 633301. *Sinapis alba* L.**  
E-170; 47-799; Ames 16012. Collected 06/05/1989 in Israel. On the X. Road, Sede Uzziyahu-Emunim, Sede Uzziyahu.
- PI 633302. *Sinapis alba* L.**  
E-177; 47-808; Ames 16013. Collected 06/05/1989 in Israel. 1 Km. E. of

the Village, on the Entrance road, Agur.

**PI 633303. Sinapis alba L.**

E-178; 47-809; Ames 16014. Collected 06/05/1989 in Israel. 1 Km. E. of the Village, on the Entrance road, Agur.

**PI 633304. Sinapis alba L.**

E-195; 47-827; Ames 16015. Collected 06/06/1989 in Israel. In the Entrance to the Stone Masonry, Megdal-Affeq.

**PI 633305. Sinapis alba L.**

E-213; 47-845; Ames 16016. Collected 06/07/1989 in Israel. 800 m. E. of x. Roads 70 and 672 near the Village, Elyaqim x. Road.

**PI 633306. Sinapis alba L.**

E-221; 47-853; Ames 16017. Collected 06/07/1989 in Israel. On the E. side of the Village, Daliyyat el Karmil.

**PI 633307. Sinapis alba L.**

E-235; 47-869; Ames 16018. Collected 06/07/1989 in Israel. In the Center of the Village, road no. 70, Bat Shelamo.

**PI 633308. Sinapis alba L.**

Wild. E-262; 47-898; Ames 16019. Collected 06/08/1989 in Israel. 1 Km. W. of KKL. nursery near Prking area, Eshta'ol.

**PI 633309. Sinapis alba L.**

Wild. E-281; 47-919; Ames 16020. Collected 06/08/1989 in Israel. 1 Km. E. on the Road to Tui Karem, Tenuvot.

**PI 633310. Sinapis alba L.**

E-291; 47-928; Ames 16021. Collected 06/15/1989 in Israel. In the center of Village on hilltop, Kelil.

**PI 633311. Sinapis alba L.**

E-292; 47-929; Ames 16022. Collected 06/15/1989 in Israel. In the center of Village on hilltop, Kelil.

**PI 633312. Sinapis alba L.**

E-297; 47-934; Ames 16023. Collected 06/15/1989 in Israel. 1.5 Km. E. from main Road, Kelil x. Road.

**PI 633313. Sinapis alba L.**

E-300; 47-937; Ames 16024. Collected 06/15/1989 in Israel. 600 m. S. of Village on X. road to Shelomi, Rosh HaNigra.

**PI 633314. Sinapis alba L.**

Wild. E-303; 47-940; Ames 16025. Collected 06/15/1989 in Israel. In the center of Village on Hilltop, Kelil.

**PI 633315. Sinapis alba L.**

E-310; 47-947; Ames 16026. Collected 06/15/1989 in Israel. Near the cemetery of the Village, Bet She'arim.

**PI 633316. Sinapis alba L.**

E-312; 47-949; Ames 16027. Collected 06/15/1989 in Israel. Near the cemetery of the Village, Bet She'arim.

- PI 633317. *Sinapis alba* L.**  
E-313; 47-950; Ames 16028. Collected 06/15/1989 in Israel. Near the cemetery of the Village, Bet She'arim.
- PI 633318. *Sinapis alba* L.**  
E-319; 47-956; Ames 16029. Collected 06/15/1989 in Israel. 200 m. S. of the entrance to Village, Tamra.
- PI 633319. *Sinapis alba* L.**  
E-320; 47-957; Ames 16030. Collected 06/15/1989 in Israel. 200 m. S. of the entrance to Village, Tamra.
- PI 633320. *Sinapis alba* L.**  
E-322; 47-959; Ames 16031. Collected 06/15/1989 in Israel. 200 m. S. of the entrance to Village, Tamra.
- PI 633321. *Sinapis alba* L.**  
E-323; 47-960; Ames 16032.
- PI 633322. *Sinapis alba* L.**  
E-337; 47-974; Ames 16033. Collected 06/16/1989 in Israel. 2 Km. S. of the entrance to the Village, Macabim.
- PI 633323. *Sinapis alba* L.**  
E-340; 47-977; Ames 16034. Collected 06/16/1989 in Israel. 2 Km. S. of the entrance to the Village, Macabim.
- PI 633324. *Sinapis alba* L.**  
Wild. E-352; 47-989; Ames 16035. Collected 06/16/1989 in Israel. On the entrance to the village, Ma'ale Hahamisha.
- PI 633325. *Sinapis alba* L.**  
E-356; 47-993; Ames 16036. Collected 06/16/1989 in Israel. W. side of the Village on Road, Bet Meir.
- PI 633326. *Sinapis alba* L.**  
E-358; 47-995; Ames 16037. Collected 06/16/1989 in Israel. W. side of the Village on Road, Bet Meir.
- PI 633327. *Sinapis alba* L.**  
E-374a; 48-012; Ames 16038. Collected 06/16/1989 in Israel. 1.2 Km. E. of Ya'ara, on Road, Ya'ara.
- PI 633328. *Sinapis alba* L.**  
Wild. E-376; 48-014; Ames 16039. Collected 06/21/1989 in Israel. 600 m. S. of the E. X. Road, Hosen.
- PI 633329. *Sinapis alba* L.**  
E-389; 48-026; Ames 16040. Collected 06/21/1989 in Israel. 1 Km. N. of X. Roads, Meron.
- PI 633330. *Sinapis alba* L.**  
43-250; Ames 16041. Collected in France. Botanical Garden, Nancy, France.
- PI 633331. *Sinapis alba* L.**

44-888; Ames 16042. Collected in France. Botanical Garden, Tours, France.

**PI 633332. *Sinapis alba* L.**

44-997; Ames 16044. Collected in France. Botanical Garden, Marseille, France.

**PI 633333. *Sinapis alba* L.**

48-814; Ames 16045. Collected in Germany. Botanical Garden, Bayreuth, FDR (Germany).

**PI 633334. *Sinapis alba* L.**

48-523; Ames 16048. Collected in France. Botanical Garden, Besancon, France.

**PI 633335. *Sinapis alba* L.**

48-537; Ames 16049. Collected in France. Botanical Garden, Dijon, France.

**PI 633336. *Sinapis alba* L.**

48-743; Ames 16050. Collected in East Slovakia, Slovakia. Botanical Garden, Kosice.

**PI 633337. *Sinapis alba* L.**

48-576; Ames 16051. Collected in France. Botanical Garden, Nancy, France.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633338. *Sinapis alba* L.**

WIR 4165; Ames 19263; Luninskaja Mestnaja. Collected 1987 in Russian Federation.

**PI 633339. *Sinapis alba* L.**

WIR 4115; Ames 19264; VNIIMK 98. Collected 1987 in Russian Federation.

**PI 633340. *Sinapis alba* L.**

WIR 178; Ames 19265. Collected 1987 in Russian Federation.

**PI 633341. *Sinapis alba* L.**

WIR 1941; Ames 19267. Collected 1987 in Russian Federation.

**PI 633342. *Sinapis alba* L.**

Wild. WIR 4199; Ames 19268; Yellow 2. Collected 1989 in Canada.

**PI 633343. *Sinapis alba* L.**

WIR 239; Ames 19269. Collected 1987 in Russian Federation.

**PI 633344. *Sinapis alba* L.**

WIR 4164; Ames 19270; Trica. Collected 1989 in Sweden.

**PI 633345. *Sinapis alba* L.**

WIR 4182; Ames 19272; Carin. Collected 1988 in France.

**PI 633346. *Sinapis alba* L.**  
WIR 4195; Ames 19273; Nakielska. Collected 1988 in Czechoslovakia.

**PI 633347. *Sinapis alba* L.**  
WIR 4183; Ames 19274; Diabla. Collected 1987 in France.

**PI 633348. *Sinapis alba* L.**  
WIR 4171; Ames 19275; Prerovska Bila. Collected 1988 in Hungary.

**PI 633349. *Sinapis alba* L.**  
WIR 4208; Ames 19276; Albatros. Collected 1989 in Germany.

**PI 633350. *Sinapis alba* L.**  
WIR 4209; Ames 19277. Collected 1989 in Germany.

**PI 633351. *Sinapis alba* L.**  
WIR 4179; Ames 19278; Kreta. Collected 1987 in Germany.

The following were donated by Goncalo Sampaio, Instituto de Botanica, Universidade Do Porto, 1191 Rua do Campo Alegre, Porto, Porto 4100, Portugal. Received 08/13/1992.

**PI 633352. *Sinapis alba* L.**  
Wild. No. 126; 900522; Ames 19358. Collected in Portugal.  
Bateiras-Pinhao, Tras-os-Montes Province.

The following were donated by Pierre Bourdon, Carneau Freres, Semences Fourrageres, 26, rue Leon Rudent, B.P. 8, Orchies, France. Received 04/25/1994.

**PI 633353. *Sinapis alba* L.**  
Cultivated. CARLA; Ames 21978. Early variety. No resistance against Heterodera Schachtii. White mustard.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank-Aussenstelle Malchow, Malchow/Poel, Mecklenburg-W.P. D-23999, Germany. Received 04/29/1996.

**PI 633354. *Sinapis alba* L.**  
Cultivar. "Mirly"; CR 1817/90a; Ames 22997.

The following were donated by Hector Gomez-Campo. Received 09/26/1991.

**PI 633355. *Sinapis alba* L.**  
Wild. G 30259; Ames 24948; 0560-78.

**PI 633356. *Sinapis alba* L.**  
Wild. G 30260; Ames 24949; 7619-88.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland; Philipp W. Simon, USDA, ARS,

Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 01/04/2000.

**PI 633357. *Sinapis alba* L.**

Cultivated. P038; POL 163016; Ames 25922. Collected 07/14/1999 in Bialystok, Poland. Latitude 52 deg. 44' 13'' N. Longitude 23 deg. 27' 28'' E. Berezowo Stare 95.

**PI 633358. *Sinapis alba* L.**

Cultivated. P051; POL 163017; Ames 25923. Collected 07/14/1999 in Bialystok, Poland. Latitude 52 deg. 43' 3'' N. Longitude 23 deg. 27' 8'' E. Mochnate.

**PI 633359. *Sinapis alba* L.**

Cultivated. P063; POL 163018; Ames 25924. Collected 07/14/1999 in Bialystok, Poland. Latitude 52 deg. 42' 17'' N. Longitude 23 deg. 26' 58'' E. Stary Kornin 42.

**PI 633360. *Sinapis alba* L.**

Cultivated. P077; POL 163019; Ames 25925. Collected 07/14/1999 in Bialystok, Poland. Latitude 52 deg. 39' 12'' N. Longitude 23 deg. 26' 10'' E. Dubicze Cerkiewne.

The following were donated by Myra Manoah, Ministry of Agriculture, The Volcani Center, The Israeli Gene Bank for Agricultural Crops, Bet Dagan, Central 50250, Israel. Received 03/01/1991.

**PI 633361. *Sinapis alba* L. subsp. *alba***

44-943; Ames 16043. Collected in Germany. Grugapark, Essen, FDR (Germany).

**PI 633362. *Sinapis alba* L. subsp. *alba***

48-816; Ames 16046. Collected in Germany. Botanical Garden, Bayreuth, FDR (Germany).

**PI 633363. *Sinapis alba* L. subsp. *alba***

48-817; Ames 16047. Collected in Germany. ALEF, Botanical Garden, Bayreuth, FDR (Germany).

**PI 633364. *Sinapis alba* L. subsp. *alba***

48-815; Ames 16052. Collected in Germany. Botanical Garden, Bayreuth, FDR (Germany).

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633365. *Sinapis alba* L. subsp. *alba***

SIN 4/82; Ames 23161. Collected 1942 in Greece. Creta, Westl. Palaeochora.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Institute for Plant Genetic Resources, Pyongyang, Korea, North. Received 06/21/1996.

**PI 633366. *Sinapis alba* L. subsp. *alba***

SIN 50/88; K 7598; Ames 23163.

The following were donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633367. *Sinapis alba* L. subsp. *alba***

Wild. 1396; NU 44698; Ames 24477. Collected 01/1998 in Turkey.

**PI 633368. *Sinapis alba* L. subsp. *alba***

Wild. 958; NU 45341; Ames 24478. Collected 01/1998 in Yugoslavia.

The following were donated by Myra Manoah, Ministry of Agriculture, The Volcani Center, The Israeli Gene Bank for Agricultural Crops, Bet Dagan, Central 50250, Israel. Received 03/01/1991.

**PI 633369. *Sinapis arvensis* L.**

E-32a; 47-655; Ames 15947. Collected 05/21/1989 in Israel. Near the road to Giv'at Nili, no. 653, Regavim.

**PI 633370. *Sinapis arvensis* L.**

E-47; 47-670; Ames 15948. Collected 05/21/1989 in Israel. On the central X. Road no. 60 and 675, Ya'el.

**PI 633371. *Sinapis arvensis* L.**

E-48; 47-671; Ames 15949. Collected 05/21/1989 in Israel. On the central X. Road no. 60 and 675, Ya'el.

**PI 633372. *Sinapis arvensis* L.**

E-82; 47-707; Ames 15950. Collected 05/22/1989 in Israel. In ditch, S. of the X. Road no. 3 and 383, Bene-Re'em X. Road.

**PI 633373. *Sinapis arvensis* L.**

E-83; 47-708; Ames 15951. Collected 05/22/1989 in Israel. In ditch, S. of the X. Road no. 3 and 383, Bene-Re'em X. Road.

**PI 633374. *Sinapis arvensis* L.**

E-84; 47-709; Ames 15952. Collected 05/22/1989 in Israel. In ditch, S. of the X. Road no. 3 and 383, Bene-Re'em X. Road.

**PI 633375. *Sinapis arvensis* L.**

E-149; 47-774; Ames 15953. Collected 06/01/1989 in Israel. 600 m. S. of Monastery, on Road no. 3, Latrun.

**PI 633376. *Sinapis arvensis* L.**

E-151; 47-776; Ames 15955. Collected 06/01/1989 in Israel. 600 m. S. of Monastery, on Road no. 3, Latrun.

**PI 633377. *Sinapis arvensis* L.**

- E-154; 47-779; Ames 15956. Collected 06/01/1989 in Israel. 200 m. N. of the Entrance to Tal Shahar, Road 3, Tal-Shahar x. Road.
- PI 633378. *Sinapis arvensis* L.**  
E-155; 47-780; Ames 15957. Collected 06/01/1989 in Israel. 200 m. N. of the Entrance to Tal Shahar, Road 3, Tal-Shahar x. Road.
- PI 633379. *Sinapis arvensis* L.**  
E-165a; 47-793; Ames 15958. Collected 06/04/1989 in Israel. 500 m. E. From the main Road no. 40, Mazor.
- PI 633380. *Sinapis arvensis* L.**  
E-166; 47-795; Ames 15959. Collected 06/04/1989 in Israel. 500 m. E. From the main Road no. 40, Mazor.
- PI 633381. *Sinapis arvensis* L.**  
E-174; 47-803; Ames 15960. Collected 06/05/1989 in Israel. 600 m. N. of the Entrance to the Village, road 40, Timmorim x. Road.
- PI 633382. *Sinapis arvensis* L.**  
E-174a; 47-804; Ames 15961. Collected 06/05/1989 in Israel. 600 m. N. of the Entrance to the Village, road 40, Timmorim x. Road.
- PI 633383. *Sinapis arvensis* L.**  
E-175a; 47-806; Ames 15962. Collected 06/05/1989 in Israel. 600 m. N. of the Entrance to the Village, road 40, Timmorim x. Road.
- PI 633384. *Sinapis arvensis* L.**  
E-187; 47-819; Ames 15964. Collected 06/06/1989 in Israel. 500 m. E. of the Large Bridge, road no. 412, Yehud x. Road.
- PI 633385. *Sinapis arvensis* L.**  
E-189; 48-821; Ames 15965. Collected 06/06/1989 in Israel. 500 m. E. of the Large Bridge, road no. 412, Yehud x. Road.
- PI 633386. *Sinapis arvensis* L.**  
E-190; 47-822; Ames 15966. Collected 06/06/1989 in Israel. 500 m. E. of the Large Bridge, road no. 412, Yehud x. Road.
- PI 633387. *Sinapis arvensis* L.**  
E-285; 47-923; Ames 15967. Collected 06/14/1989 in Israel. On the x. Road to Kefar Sava, Eyal x. Road.
- PI 633388. *Sinapis arvensis* L.**  
E-286; 47-924; Ames 15968. Collected 06/14/1989 in Israel. On the x. Road to Kefar Sava, Eyal x. Road.
- PI 633389. *Sinapis arvensis* L.**  
E-288; 47-925; Ames 15969. Collected 06/14/1989 in Israel. On the x. Road to Kefar Sava, Eyal x. Road.
- PI 633390. *Sinapis arvensis* L.**  
E-305; 47-942; Ames 15970. Collected 06/15/1989 in Israel. In the center of Village on Hilltop, Kelil.
- PI 633391. *Sinapis arvensis* L.**  
E-325; 47-962; Ames 15971. Collected 06/15/1989 in Israel. On the W.

side of Village, near Road, Ahihud.

**PI 633392. *Sinapis arvensis* L.**

E-326; 47-963; Ames 15972. Collected 06/15/1989 in Israel. On the W. side of Village, near Road, Ahihud.

**PI 633393. *Sinapis arvensis* L.**

E-327; 47-964; Ames 15973. Collected 06/15/1989 in Israel. On the W. side of Village, near Road, Ahihud.

**PI 633394. *Sinapis arvensis* L.**

E-343; 47-980; Ames 15974. Collected 06/16/1989 in Israel. 2 Km. S. of the entrance to the Village, Macabim.

**PI 633395. *Sinapis arvensis* L.**

E-345; 47-982; Ames 15975. Collected 06/16/1989 in Israel. 2 Km. S. of the entrance to the Village, Macabim.

**PI 633396. *Sinapis arvensis* L.**

E-348; 47-985; Ames 15976. Collected 06/16/1989 in Israel. 2 Km. S. of the entrance to the Village, Macabim.

**PI 633397. *Sinapis arvensis* L.**

E-355; 47-992; Ames 15977. Collected 06/16/1989 in Israel. 2 Km. S. of the entrance to the Village, Macabim.

**PI 633398. *Sinapis arvensis* L.**

E-370; 48-007; Ames 15978. Collected 06/21/1989 in Israel. 1 Km. E. of Shelomi, on road, Shelomi.

**PI 633399. *Sinapis arvensis* L.**

E-371; 48-008; Ames 15979. Collected 06/21/1989 in Israel. 1 Km. E. of Shelomi, on road, Shelomi.

**PI 633400. *Sinapis arvensis* L.**

E-372; 48-009; Ames 15980. Collected 06/21/1989 in Israel. 1 Km. E. of Shelomi, on road, Shelomi.

**PI 633401. *Sinapis arvensis* L.**

E-373; 48-010; Ames 15981. Collected 06/21/1989 in Israel. 1 Km. E. of Shelomi, on road, Shelomi.

The following were collected by H. Hubatsch, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; Kurt Hubatsch, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

**PI 633402. *Sinapis arvensis* L. subsp. *arvensis***

Ames 15734. Collected in Germany. Leipzig-Eutritzsch, Sachsen, Germany.

The following were donated by Myra Manoah, Ministry of Agriculture, The Volcani Center, The Israeli Gene Bank for Agricultural Crops, Bet Dagan, Central 50250, Israel. Received 03/01/1991.

**PI 633403. *Sinapis arvensis* L. subsp. *arvensis***

Sin 15; 40-298/10; Ames 16054.

**PI 633404. *Sinapis arvensis* L. subsp. *arvensis***

Sin 16; 40-298/11; Ames 16055.

**PI 633405. *Sinapis arvensis* L. subsp. *arvensis***

43-251; Ames 16056. Collected in France. Botanical Garden, Nancy, France.

**PI 633406. *Sinapis arvensis* L. subsp. *arvensis***

44-985; Ames 16057. Collected in France. Botanical Garden, Dijon, France.

**PI 633407. *Sinapis arvensis* L. subsp. *arvensis***

48-538; Ames 16062. Collected in France. Botanical Garden, Dijon, France.

**PI 633408. *Sinapis arvensis* L. subsp. *arvensis***

48-577; Ames 16063. Collected in France. Botanical Garden, Nancy, France.

The following were donated by N.I. Vavilov Research Institute of Plant Industry, 44, B. Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 07/20/1992.

**PI 633409. *Sinapis arvensis* L. subsp. *arvensis***

WIR 4177; Ames 19279. Collected 1988 in Romania.

**PI 633410. *Sinapis arvensis* L. subsp. *arvensis***

WIR 4166; Ames 19280. Collected 1989 in Georgia.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

**PI 633411. *Sinapis arvensis* L. subsp. *arvensis***

SIN 39/85; K 5730; Ames 23162. Collected 08/20/1981 in Czech Republic. In a westerly direction Slowakei, Zubak, northwesterly. Puchov, Biele Kapaty, Nordosthang in a southern direction of area center. Weed out of 522.

**PI 633412. *Sinapis arvensis* L. subsp. *arvensis***

SIN 59/93; K 5736; Ames 23164. Collected 08/21/1981 in Czech Republic. Westerly of Slowakei, Hvozdnica, southwesterly Bytca, Javorniky, southwest slope of the upper half of the area. Weed out of 597.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Botanic Garden, University of Torino, Torino, Piedmont, Italy. Received 06/21/1996.

**PI 633413. *Sinapis arvensis* L. subsp. *arvensis***

SIN 66/93; K 8082; Ames 23167.

The following were collected by Hans Kohler, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; M. Krusche, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; H. Roth, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany . Received 06/17/1991.

**PI 633414. *Thlaspi arvense* L.**

Ames 15735. Collected in Germany. Wachstedt, Thuringen, Germany.

The following were collected by H.J. Lempe. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

**PI 633415. *Thlaspi arvense* L.**

Ames 15739. Collected in Germany. Belgern, Sachsen, Germany.

The following were developed by David J. Andrews, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68503, United States; J.F. Rajewski, University of Nebraska, Dept. of Agronomy, P.O. Box 830915, Lincoln, Nebraska 68583-0915, United States; Ismail Dweikat, University of Nebraska, 279 Plant Science, Agronomy and Horticulture Department, Lincoln, Nebraska 68583, United States. Received 04/29/2003.

**PI 633416. *Setaria italica* (L.) P. Beauv.**

Breeding. N-Si-6. GP-83. Pedigree - Selected from PI 464345 (originally from Madras State, India) by 3 cycles of bulk pedigree selection of 10-20 superior uniform late vegetative plants per cycle. Very tall (1.60 m), high tillering (136 heads/m<sup>2</sup>), very late flowering (+/-90 days) at Mead, NE, thick stemmed (0.3-0.5 cm at base) very leafy hay type foxtail millet, 11.7 to 13.0 t/ha of total biomass. Main heads cylindrical semi-loose tapering at tip +/-15 cm long x 1.5 cm wide with 0.7 to 1.0 cm bristles. Seeds have sandy brown glumes (hulls) and seeds (with hulls) weigh 2.79 g/1000, 2.40 g/1000 dehulled. Dehulled seeds opaque sandy brown in color.

**PI 633417. *Setaria italica* (L.) P. Beauv.**

Breeding. N-Si-7. GP-84. Pedigree - Selected from variety JI GU 9 (obtained in 1984 from He Bei Province China) by 3 cycles of bulk pedigree selection. Tall (1.56 m), tillering (77 heads/m<sup>2</sup>), late flowering (+/-80 days at Mead, NE), thick stemmed (0.3-0.7 mm wide at base) leafy dual purpose hay/grain type foxtail millet. Grain yields of 2.0-3.6 t/ha, and 8.1 to 10.7 t/ha of total biomass have been recorded. Main heads large +/-17cm long x 2.5 cm wide, cylindrical, dense, slightly pointed and strongly lobed (seeds bunched on primary branches from rachis), lobes overlapping in 7-8 rows on head. Bristles 0.3-0.5 cm. Glumes sandy colored, seeds (with hull) 2.54 g/1000 dehulled 2.24 g/1000. Dehulled grain round, opaque yellow.

**PI 633418. *Setaria italica* (L.) P. Beauv.**

Breeding. N-Si-8. GP-85. Pedigree - Selected from variety Ning Huang (obtained in 1984 from He Bei Province China) by 3 cycles of bulk

pedigree selection. Tall (1.24 m), tillering (63 heads/m<sup>2</sup>), late flowering (+/-78 days at Mead, NE), thick stemmed (0.3-0.7 mm wide at base) leafy dual purpose hay/grain type foxtail millet. Grain yields of 2.2-4.7 t/ha, and 8.2 t/ha of total biomass have been recorded. Main heads large +/-15 cm long x 2/1 cm wide, cylindrical, dense, blunt ended and strongly lobed (seeds bunched on primary branches from rachis), lobes partly overlapping in 7-8 rows on head with a few short (0.1 cm) bristles. Glumes sandy colored and easily removed, seeds (with hulls) 2.72 g/1000 dehulled 2.34 g/1000. Dehulled grain round and lustrous pale yellow.

The following were developed by S. Shanmugasundaram, Asian Vegetable Research & Dev. Center, P.O. Box 42, Shunhua, Tainan, Taiwan; M.A. Afzal, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh; A. Hamid, Bangabadhu Sheikh Mujibur Rahman Agricultural University, Dept. of Agronomy, Gaqipur-1701, Bangladesh; M. Moynul Haque, Bangabadhu Sheikh Nujibur Rahman Agricultural University, (BSMRAU), Dept. of Agronomy, Gazipur, Bangladesh. Received 04/07/2003.

**PI 633419. *Vigna radiata* (L.) R. Wilczek**

Cultivar. "BUmug-1". CV-217. Pedigree - Introduced as VC 6372 (45-8-1) from Asian Veg. Res. & Dev. Center, Taiwan. Erect growth habit and height of 30-40 cm. Flowers 30-35 d after emergence and reaches physiological maturity 60-70 d after emergence. Leaves trifoliate, alternate, and green. Leaf pubescences absent or very few. Petioles short and purple-green. Corolla yellowish-green. Raceme position is above the canopy. Mature pods black. Seeds drum-shaped, dull and greenish. Has a 100-seed weight of about 4.4g. Hypocotyl color purple. Cotyledon color yellow. Resistant to MYMV and CLS. During initial evaluation, the families or lines were screened for combined resistance using the spreader row technique. Seeds have 77.2% cotyledon content, and produce 69.8% head dhal (intact cotyledon after splitting) using the traditional method of dehulling. Takes about 22 minutes to cook and shows solid dispersion of 27.4%. Contains 20.5% protein and 47.6% carbohydrate.

The following were developed by M.A. Afzal, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh. Received 04/07/2003.

**PI 633420. *Vigna radiata* (L.) R. Wilczek**

Cultivar. "BUmug-2". Pedigree - Introduced as VC 6372 (30-65) from Asian Veg. Res. & Dev. Center, Taiwan. Erect and dwarf growth habit and height of 30-35 cm. Flowers in 26-34 d after emergence and reaches physiological maturity 60-65 d after emergence. Leaves trifoliate, alternate, and green. Leaf pubescences absent or very few. Petioles short and purple-green. Corolla yellowish-green. Raceme position above the canopy. Mature pods black. Seeds drum-shaped, dull and greenish. Has a 100 seed weight of about 5.5 g. Hypocotyl color purple. Cotyledon color yellow. Resistant to MYMV and CLS. Seeds have 79.2 cotyledon content, and produce 68.8% head dhal (intact cotyledon after splitting) using the traditional method of dehulling. Takes about 21 minutes to cook and shows solid dispersion of 26.8%. Contains 20.7 protein and 48.6% carbohydrate.

The following were developed by B. Sakr, National Inst. for Agricultural Research, CRRA Post Office Box 589, Settat, Morocco; W. Erskine, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; H. El Hassan, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; N. Kadah, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; B.A. Karim, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Received 05/05/2003.

**PI 633421 QUAR. *Lens culinaris* Medik.**

Cultivar. "BICHETTE"; ILL 5562. CV-17. Pedigree - Selection from a Jordanian landrace with pedigree number 76TA 66005. Semi-erect and medium-statured variety measuring an average plant height of 40 cm with 2 to 3 primary branches per plant. First pod-bearing node height is at 14 to 17 cm above the ground level, which helps reduce harvest losses. Leaves light green, slightly pubescent and composed of up to 16 medium sized leaflets and ending in small tendrils. Flower color white. Takes 110 days to flower and 150 days to mature which is more than a week earlier than the check, L 24. Plant bear an average of 45 pods, which are non-pigmented and often grouped in 2 or 3 pods per peduncle. Seeds round with yellow cotyledons and weigh about 4.5 g 100-1 seeds. Pods do not shatter at maturity, a highly desirable trait for machine harvest. One of the important characteristics of this variety is that it has high level of tolerance to both rust and *Ascochyta* blight diseases.

**PI 633422 QUAR. *Lens culinaris* Medik.**

Cultivar. "HAMRIA"; ILL 6238; Flip 87-481. CV-16. Pedigree - Developed from a cross between ILL 4354 / ILL 922 following a bulk-pedigree method. Erect and tall with an average height of 45 cm. Develops 2-3 primary branches per plant. First pod-bearing node about 16 cm above ground level, which allows machine harvest with minimum loss. Leaves light green with pubescence and is comprised of 10 to 14 narrow leaflets. Stem green and flowers white. Plants bear an average of 35 pods, each of which contains one seed with beige testa color, but with bright red cotyledons. Pods non-pigmented and are borne two per peduncle. Seeds small and average about 3 g 100-1 seeds. Flowers in 90 days and matures in 130 days. Possesses combined resistance to rust (*Uromyces viciae-fabae*) and *Ascochyta* blight (*Ascochyta fabae*).

The following were developed by Mark Uebersax, Michigan State University, 135 Food Science Building, East Lansing, Michigan 48824-1224, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824-1325, United States; Jim D. Kelly, Michigan State University, Department of Crop & Soil Science, 370 Plant & Soil Sci. Bldg. MSU, East Lansing, Michigan 48824-1325, United States; Gregory M. Varner, Dry Edible Bean Research, Advisory Board, 3066 S. Thomas Road, Saginaw, Michigan 48603, United States. Received 04/29/2003.

**PI 633423. *Phaseolus vulgaris* L.**

Cultivar. "MERLOT". CV-211. Pedigree - ARS-R94037 / ARS-R94161. Type IIa growth habit, characterized by an erect plant with both a strong main stem and basal branches. This feature gives excellent lodging resistance. Yield average 2,708 kg-ha<sup>-1</sup> over 18 test sites in Michigan from 1998-2002 and 3,942 kg-ha<sup>-1</sup> at Othello, WA in 2002. Dry seed

characteristics meet the requirements of commerce. Individual seed colored an attractive garnet with an intense red saturation and a noticeable black hilum ring. Seeds oval, 12.0 x 8.0 mm in length and width, respectively, plump at the surface tangential to the hilum and gently rounded at the apices. Seeds weigh 40.0 g 100 seeds<sup>-1</sup>. Flowers white, averages 470 mm in height at physiological maturity, blooms about 45 days after planting and matures between 87 to 100 days. Has the bc-1(2) gene for resistance to bean common mosaic virus and the Ur-3 gene for resistance to Race 53 of bean rust disease (*Uromyces appendiculatus*). Is the only small-red commercial cv. resistant to bean rust disease. Desirable.

The following were developed by Tadesse Mebrahtu, Virginia State University, P.O. Box 9061, Petersburg, Virginia 23806, United States. Received 05/12/2003.

**PI 633424. *Glycine max* (L.) Merr.**

Cultivar. "Randolph"; VS20-418. CV-473; PVP 200300241. Pedigree - PI 417288 x (T135 x PI 83945-4). Released 03/23/2002. Large-seeded, intended for use as vegetable. Group VI maturity. Two year average green pod yield of 14,825 kg/ha. Green bean had 44.5% protein, 51.8 mg/g sucrose, and 11.3% oil with 39.9% of the oil as oleic acid. Over two years produced an average of 1637 kh/ha of mature seeds with protein content of 46% and 11.3% oil of which 24.6% was oleic fatty acid. Flowers white and gray pubescence. Seeds have yellow seed coats and brown hila. Seeds large, weighing 27 g per 100 seeds. Determinate growth habit with plants growing to 56 cm in height.

The following were developed by David D. Baltensperger, University of Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States; C. Stymiest, South Dakota State University, Plant Science Dept., Brookings, South Dakota 57007, United States; J. Rickertsen, South Dakota State University, Plant Science Dept., Brookings, South Dakota 57007, United States; J.J. Johnson, Colorado State University, Dept. of Soil and Crop Sciences, Fort Collins, Colorado 80523, United States; Lenis A. Nelson, University of Nebraska, Department of Agronomy, 342 Keim Hall - E. Campus, Lincoln, Nebraska 68583, United States; M. Krall, University of Nebraska, Dept. of Plant Sciences, Larimie, Wyoming 82071, United States; G.E. Frickel, University of Nebraska, Dept. of Agronomy & Horticulture, Lincoln, Nebraska 68583, United States; M. Vigil, USDA-ARS Central Great Plains Research Station, 40375 Co. Rd. GG, Akron, Colorado 80720, United States; J. Hain, Colorado State University, Dept. of Soil & Crop Sciences, Fort Collins, Colorado 80523, United States. Donated by David D. Baltensperger, University of Nebraska, Panhandle Research, & Extension Center, Scottsbluff, Nebraska 69361-4939, United States. Received 04/03/2003.

**PI 633425. *Panicum miliaceum* L.**

Cultivar. "Horizon"; NE-9217. CV-232. Pedigree - Selection from Bulk Population (Sunup, Dawn, Rise, Cope, Earlybird, Sunrise, Huntsman). Seed coat white (lemma and palea) and a compactum (closed) type panicle. Foliage green in color and similar to Sunup. Nebraska trials, average grain yields were 2.5% higher than Sunrise and Huntsman, and 5% higher than Earlybird. Broadly adapted across the high Plains region, yielding well from South Dakota to Colorado and Wyoming. Earlier in maturity than Sunrise and Earlybird, and later than Dawn. Dawn is generally ready for

harvest at least 1 week earlier than Horizon. Flowering is similar to Sunrise and Earlybird, but the seed fill period is shorter with appropriate moisture for harvest being reached two to three days earlier. Seed size (158 seeds g<sup>-1</sup>) is similar to Sunrise and Earlybird, and larger than Huntsman (161 seeds g<sup>-1</sup>). Grain volume weight (725 g L<sup>-1</sup>) is similar to Earlybird (721 g L<sup>-1</sup>) and Sunrise (728 g L<sup>-1</sup>), and over the past 4 years has generally been higher than other released cultivars. Shorter (33 cm) than Earlybird, Sunrise, Sunup and Huntsman (35-36).

The following were developed by A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States; Mark J. Sellmann, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 04/07/2003.

**PI 633426. *Festuca brevipila* R. Tracey**

Cultivar. "RESCUE 911". CV-92. Pedigree - Original parents include Biljart, Waldina, Scaldis and Centurion hard fescue. Results from the 1998 NTEP Progress Report, 2001 shows improved in overall quality under medium-input conditions. In the same trial, was the darkest hard fescue in the trial. Also displayed improved fall % living ground cover and resistance to summer patch (*Magnaporthe poae*) and was more resistant than Osprey, Scaldis and Scaldis II. Most similar to Brigade. However, differs in several key morphological characteristics including length of culm from crown to flagleaf collar and flagleaf sheath length. Also has lighter weight seed than Brigade. This is an improved turf-type cv. with dark green leaves and a slower growing habit. Key attributes are good establishment, persistence, and presence of endophyte (*Neotyphodium* spp). With the endophyte comes improved resistance to diseases such as dollar spot (*Sclerotinia homoeocarpa*) as well as resistance to surface-feeding insects like billbug (*Shenophorus* spp). Uniform and stable. Recommended for home lawns, roadsides, parks and golf.

The following were developed by Jorge A. Acosta-Gallegos, National Research Institute for Forestry Agriculture, CIRNOC-INIFAP-SARAH, Bean Program, Valle de Mexico Experimental Station, Chapingo, Mexico 56230, Mexico; Francisco J. Ibarra-Perez, National Research Institute for Forestry and Agriculture, CIRNOC-INIFAP-SARH, Valle del Guadiana Experimental Station, Durango, Durango 34000, Mexico; R. Rosales-Serna, National Research Institute for Forestry and Agriculture, Bean/Cowpea-CRSP, Durango Experimental Station, Durango, Durango CP 34000, Mexico; Shree P. Singh, University of Idaho, Kimberly Research & Extension Ctr., 3793 North 3600 East, Kimberly, Idaho 83341-5076, United States; Isaac Sanchez Valdez, National Research Institute for Forestry and Agriculture, Saltillo Experiment Station, Blv. Vito Alessio Robles #2565, Chapingo, Mexico, Mexico. Received 04/10/2003.

**PI 633427. *Phaseolus vulgaris* L.**

Cultivar. "PINTO SALTILLO"; PT 93004. CV-222. Pedigree - Hidalgo 77/4/MAM30/3/Michoacan 91-A/BAT76/BAT93/Ecuador 299. A medium seeded (34 g 100 seed<sup>-1</sup>) cultivar of indeterminate type III growth habit adapted to the rainfed conditions in the Mexican highlands. Midseason with a range in maturity from 87 to 100 days in rainfed highlands. Resistant to all races of anthracnose and rust prevalent in the semiarid highlands. Seeds do not darken under normal storage conditions in one or two years, a trait that makes this cv. more attractive to farmers, retailers and

consumers.

The following were developed by Jorge A. Acosta-Gallegos, National Research Institute for Forestry Agriculture, CIRNOC-INIFAP-SARAH, Bean Program, Valle de Mexico Experimental Station, Chapingo, Mexico 56230, Mexico; Jim D. Kelly, Michigan State University, Department of Crop & Soil Science, 370 Plant & Soil Sci. Bldg. MSU, East Lansing, Michigan 48824-1325, United States; Francisco J. Ibarra-Perez, National Research Institute for Forestry and Agriculture, CIRNOC-INIFAP-SARH, Valle del Guadiana Experimental Station, Durango, Durango 34000, Mexico; R. Rosales-Serna, National Research Institute for Forestry and Agriculture, Bean/Cowpea-CRSP, Durango Experimental Station, Durango, Durango CP 34000, Mexico; Shree P. Singh, University of Idaho, Kimberly Research & Extension Ctr., 3793 North 3600 East, Kimberly, Idaho 83341-5076, United States; A. Castillo-Rosales, National Research Institute for Forestry and Agriculture, Bean Program, Valle de Mexico Experimental Station, Chapingo, Mexico 56230, Mexico; B.C. Enriquez, INIFAP, CIFAP, Experimental Valle De Mexico, Apartado Postal No. 10, KM 38.5 CARR. Mex-VER/VIA Texcoco, Chapingo, Mexico, Mexico. Received 04/10/2003.

**PI 633428. Phaseolus vulgaris L.**

Cultivar. "NEGRO VIZCAYA"; NG 93044. CV-223. Pedigree - A800/4/Negro San Luis (PI 583654)/BAT 477/3/XAN87//G2618/G4017. High-yielding, disease resistant shiny black-seeded cultivar adapted to the rainfed conditions of the semiarid highlands of Mexico. Indeterminate type III growth habit and blooms and matures 43 and 102 days after planting respectively. Carries the dominant I resistant gene to BCMV. Resistant to halo blight and tolerant to root-knot.

The following were developed by DLF-Trifolium A/S, Denmark. Received 04/29/2003.

**PI 633429 PVPO. Pisum sativum L.**

Cultivar. "NITOUCHE". PVP 200300209.

The following were developed by Syngenta Seeds, Inc., United States. Received 04/29/2003.

**PI 633430 PVPO. Pisum sativum L.**

Cultivar. "SP799-3-1". PVP 200300212.

The following were developed by Black Jewell Popcorn, Inc., RR 1, St. Francisville, Illinois 62460, United States. Received 04/29/2003.

**PI 633431. Zea mays L. subsp. mays**

Cultivar. "BLACK JEWELL 02". PVP 200300213.

The following were developed by Paragon Seed, Inc., United States. Received 04/29/2003.

**PI 633432 PVPO. Lactuca sativa L.**

Cultivar. "HOME RUN"; Exp. 1511. PVP 200300214.

**PI 633433 PVPO. *Lactuca sativa* L.**  
Cultivar. "GRAND SLAM". PVP 200300215.

The following were developed by John Bodger & Sons Company, United States.  
Received 04/29/2003.

**PI 633434 PVPO. *Catharanthus roseus* (L.) G. Don**  
Cultivar. "HEATWAVE RED"; M7036. PVP 200300216.

The following were developed by Pioneer Hi-Bred International, Inc, United States.  
Received 04/29/2003.

**PI 633435 PVPO. *Sorghum bicolor* (L.) Moench**  
Cultivar. "PH83WVW". PVP 200300217.

**PI 633436 PVPO. *Sorghum bicolor* (L.) Moench**  
Cultivar. "PH085ZJFE". PVP 200300218.

**PI 633437 PVPO. *Sorghum bicolor* (L.) Moench**  
Cultivar. "PHU80MJ". PVP 200300219.

**PI 633438 PVPO. *Sorghum bicolor* (L.) Moench**  
Cultivar. "PH40AZE". PVP 200300220.

The following were developed by Oklahoma Agricultural Experiment Station,  
Stillwater, Oklahoma, United States. Received 04/29/2003.

**PI 633439 PVPO. *Cynodon dactylon* (L.) Pers. var. *dactylon***  
Cultivar. "RIVERIERA"; OKS 95-1. PVP 200300221.

The following were donated by International Potato Center, Apartado 5969,  
Lima, Lima, Peru. Received 03/02/1998.

**PI 633440. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "WT-325"; Q 37469. .

The following were donated by Francisco Vilaro, INIA - Programa Horticultura,  
Est. Exptal Las Brujas, Rincon del Colorado, Canelones, Uruguay. Received  
02/16/2000.

**PI 633441. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Ayui"; Q 42561.

**PI 633442. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Los Cerrillas"; Q 42563.

The following were donated by Le Tran Binh, Vietnamese Institute for Plant  
Biotechnology, Hoang Quoc Viet Street, Cau Giay, Vietnam. Received  
07/28/2000.

**PI 633443. *Ipomoea batatas* (L.) Lam. var. *batatas***

Cultivar. "NN31"; Q 42683.

The following were donated by International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 08/29/2000.

**PI 633444. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Comensal"; CIP 187015.1; Q 42705. .

**PI 633445. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Salyboro"; CIP 187017.1; Q 42707. .

**PI 633446. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Abees"; CIP 440161; Q 42708. .

**PI 633447. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Benikomachi"; CIP 440115; Q 42709. .

**PI 633448. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Kyushu No.100"; CIP 440173; Q 42714. .

**PI 633449. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "Narunmitang"; CIP 440201; Q 42715. .

The following were donated by Le Tran Binh, Vietnamese Institute for Plant Biotechnology, Hoang Quoc Viet Street, Cau Giay, Vietnam. Received 10/05/2000.

**PI 633450. *Ipomoea batatas* (L.) Lam. var. *batatas***  
Cultivar. "L259"; Q 42684; Q 42882.

The following were donated by Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 05/12/2003.

**PI 633451. *Phaseolus vulgaris* L.**  
Cultivar. "BAT93"; W6 24319. Used as a parent of the BAT93 x Jalo EEP558 RI population (recombinant inbred lines). For further information on the development of the population, and on justification of its use in genetic mapping studies see citations below.

The following were developed by Soon Jai Park, Agriculture and Agri-Food Canada, Harrow Research Station, 2585 County Road 20, Harrow, Ontario N0R 1G0, Canada. Received 05/12/2003.

**PI 633452. *Phaseolus vulgaris* L.**  
Cultivar. "AC Ole"; W6 24320.

The following were donated by USDA, ARS, NCGRP, National Center for Genetic Resources Preservation, 1111 South Mason Street, Fort Collins, Colorado 80521-4500, United States; North Dakota State University, North Dakota Agricultural Exp. Sta., Fargo, North Dakota 58105, United States. Received 1961.

**PI 633453. *Lycopersicon esculentum* Mill.**  
Cultivar. "Allred"; NSL 5787; G 31929. Determinate, medium to small plants, red fruits, adapted to No. state & So. Canada, extra early maturity, deep oblate shape, smooth. Peto Seed 1960 descr. folder.

The following were donated by University of Hawaii, Hawaiian Agricultural Experiment Station, Honolulu, Hawaii, United States. Received 1962.

**PI 633454. *Lycopersicon esculentum* Mill.**  
Cultivar. "Kolea"; Oahu-N; NSL 20541.

The following were donated by New York State Agricultural Experiment Station, Geneva, New York 14456-0462, United States. Received 1963.

**PI 633455. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22742; 62-233-N.

**PI 633456. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22743; 62-236-1.

**PI 633457. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22749; 62-244-N.

**PI 633458. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22762; 62-259-N.

**PI 633459. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22775; 62-276-N.

**PI 633460. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22785; 62-294-N.

**PI 633461. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22790; 62-299-N.

**PI 633462. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22802; 62-312-1.

**PI 633463. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22811; 62-324-N.

**PI 633464. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22818; 62-332-N.

**PI 633465. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22832; 62-353-1.

**PI 633466. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22834; 62-356-N.

**PI 633467. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 22839; 62-364-N.

**PI 633468. *Lycopersicon esculentum* Mill.**

Uncertain. NSL 22842; 62-381-N.

The following were donated by Oklahoma State University, Oklahoma Agr. Exp. Sta., Department of Agronomy, Stillwater, Oklahoma 74074, United States. Received 1967.

**PI 633469. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26244; T013.

**PI 633470. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26245; T014.

**PI 633471. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26295; T065.

**PI 633472. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26298; T068.

**PI 633473. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26299; T069.

**PI 633474. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26300; T070.

**PI 633475. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26302; T072.

**PI 633476. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26304; T074.

**PI 633477. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26308; T078.

**PI 633478. *Lycopersicon esculentum* Mill.**  
Uncertain. NSL 26311; T081.

The following were donated by Texas A&M University, Texas Agricultural Exp. Station, College Station, Texas 77841, United States. Received 1963.

**PI 633479. *Lycopersicon esculentum* Mill.**  
Cultivar. "Curl"; G1729; NSL 26548. Reprint from Journal of Heredity, Washington D.C., Vol. XLVI, No. 5, September-October, 1955.

The following were donated by Gill Bros., Oregon, United States; USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

**PI 633480. *Lycopersicon esculentum* Mill.**  
Cultivar. "Potentate"; NSL 27163. Collected in United Kingdom.

**PI 633481. *Lycopersicon esculentum* Mill.**  
Cultivar. "Red Heart"; NSL 27177.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

**PI 633482. *Lycopersicon esculentum* Mill.**  
Cultivar. "Rosey Morn"; NSL 27194. Cheyenne Hort. Field Sta. Notes.

**PI 633483. *Lycopersicon esculentum* Mill.**  
Cultivar. "Yellow Beauty"; NSL 27274. Cheyenne Hort. Field Sta. Notes.

The following were donated by Arthur Yates & Co. Pty., Ltd., Rockhampton, Queensland 4700, Australia; USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

**PI 633484. *Lycopersicon esculentum* Mill.**  
Cultivar. "Australian-Dwarf Red"; NSL 27287. A. Yate's australia 1937 catalog.

The following were donated by USDA, ARS, Horticultural Station, P.O. Box 1250, Cheyenne, Wyoming, United States. Received 1963.

**PI 633485. *Lycopersicon esculentum* Mill.**  
Cultivar. "Early Marketer"; NSL 27331. Cheyenne Hort. Field Sta. Notes.

**PI 633486. *Lycopersicon esculentum* Mill.**  
Cultivar. "Gesnte Tezier"; NSL 27347. Cheyenne Hort. Field Sta. Notes.

**PI 633487. *Lycopersicon esculentum* Mill.**  
Cultivar. "Isbells Golden Colossal"; NSL 27354. Cheyenne Hort. Field Sta. Notes.

**PI 633488. *Lycopersicon esculentum* Mill.**  
Cultivar. "Market Wonder"; NSL 27386. Collected in Netherlands. Cheyenne Hort. Field Sta. Notes.

**PI 633489. *Lycopersicon esculentum* Mill.**  
Cultivar. "Monarch"; NSL 27394. R. Buist Co. 193 catalog.

**PI 633490. *Lycopersicon esculentum* Mill.**  
Cultivar. "Pierrette"; NSL 27420. Cheyenne Hort. Field Sta. Notes.

**PI 633491. *Lycopersicon esculentum* Mill.**  
Cultivar. "Ponderosa"; NSL 27422. Burgess 1960 catalog.

**PI 633492. *Lycopersicon esculentum* Mill.**  
Cultivar. "Self-Topper Red Globular"; NSL 27450. Cheyenne Hort. Field Sta. Notes.

**PI 633493. *Lycopersicon esculentum* Mill.**  
Cultivar. "Wayahead"; NSL 27477. Cheyenne Hort. Field Sta. Notes.

**PI 633494. *Lycopersicon esculentum* Mill.**  
Cultivar. "All State"; NSL 27484. Gurney Seed & Nursery Co. 1942 catalog

**PI 633495. *Lycopersicon esculentum* Mill.**

Cultivar. "Goldkonigen"; NSL 27512. Collected in Germany. Cheyenne Hort. Field Sta. Notes.

**PI 633496. *Lycopersicon esculentum* Mill.**

Cultivar. "Red Tomato of Montlhery"; NSL 27554. Collected in France. Cheyenne Hort. Field Sta. Notes.

**PI 633497. *Lycopersicon esculentum* Mill.**

Cultivar. "Early Baltimore 1A-4-40"; NSL 27575. Illinois Expt. Sta. descr.

**PI 633498. *Lycopersicon esculentum* Mill.**

Cultivar. "Il Duce"; NSL 27600. Trivett's 1935 catalog.

The following were donated by New York State Agricultural Experiment Station, Geneva, New York 14456-0462, United States. Received 1965.

**PI 633499. *Lycopersicon esculentum* Mill.**

Uncertain. NSL 34294; 63-278-N.

**PI 633500. *Lycopersicon esculentum* Mill.**

Uncertain. NSL 34306; 63-313-N.

**PI 633501. *Lycopersicon esculentum* Mill.**

Uncertain. NSL 34315; 63-330-N.

The following were donated by Utah State University, Utah Agric. Exp. Sta., Logan, Utah 84322, United States. Received 1966.

**PI 633502. *Lycopersicon esculentum* Mill.**

Cultivar. 432; "King George"; NSL 43554. Collected in United Kingdom. T9-Toogood, Eng. 1931.

**PI 633503. *Lycopersicon esculentum* Mill.**

Cultivar. 156; "Red Peach"; No. 95128; NSL 43565. Haven Seed Co. 1931.

The following were donated by University of California, California Agr. Exp. Sta., Davis, California 95616, United States. Received 1968.

**PI 633504. *Lycopersicon esculentum* Mill.**

Cultivar. "Jenkins Line No. 1595"; NSL 67815. Strain 1595 - "Mouse ear" leaf mutant Me reference str.

The following were donated by Utah State University, Utah Agric. Exp. Sta., Logan, Utah 84322, United States. Received 1966.

**PI 633505. *Lycopersicon esculentum* Mill.**

Cultivar. 317; "Yellow Peach"; NSL 84612. Vaughn's Seed 1931.

The following were donated by Corno Feed Products, 1931 Baugh Avenue, East St. Louis, Illinois 62205, United States. Received 1971.

**PI 633506. *Lycopersicon esculentum* Mill.**

Uncertain. No. 1138b; NSL 85293; Potato Leaf Type. Weighs from one to two pounds, non acid, bears fruit all season, blight-proof, potato leaves, excellent taste, very solid, blossom fall-off when temp. reaches 90 degrees, needs to be staked. 8/73 Wall Street Journal, Letter from J.W. Collins Sept. 1971 (see appl.).

Unknown source. Received 06/19/1989.

**PI 633507. *Phaseolus vulgaris* L.**

Cultivated. W6 291. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633508. *Phaseolus vulgaris* L.**

Cultivated. W6 292. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633509. *Phaseolus vulgaris* L.**

Cultivated. W6 293. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633510. *Phaseolus vulgaris* L.**

Cultivated. W6 294. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633511. *Phaseolus vulgaris* L.**

Cultivated. W6 295. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633512. *Phaseolus vulgaris* L.**

Cultivated. W6 296. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633513. *Phaseolus vulgaris* L.**

Cultivated. W6 297. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633514. *Phaseolus vulgaris* L.**

Cultivated. W6 298. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633515. Phaseolus vulgaris L.**

Cultivated. W6 299. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633516. Phaseolus vulgaris L.**

Cultivated. W6 300. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633517. Phaseolus vulgaris L.**

Cultivated. W6 301. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633518. Phaseolus vulgaris L.**

Cultivated. W6 302. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633519. Phaseolus vulgaris L.**

Cultivated. W6 303. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633520. Phaseolus vulgaris L.**

Cultivated. W6 304. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633521. Phaseolus vulgaris L.**

Cultivated. W6 305. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633522. Phaseolus vulgaris L.**

Cultivated. W6 306. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633523. Phaseolus vulgaris L.**

Cultivated. W6 307. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633524. Phaseolus vulgaris L.**

Cultivated. W6 308. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/19/1989.

**PI 633525. Phaseolus vulgaris L.**

Cultivated. W6 309. Collected 06/19/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633526. Phaseolus vulgaris L.**

Cultivated. W6 312. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633527. Phaseolus vulgaris L.**

Cultivated. W6 313. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633528. Phaseolus vulgaris L.**

Cultivated. W6 314. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633529. Phaseolus vulgaris L.**

Cultivated. W6 315. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633530. Phaseolus coccineus L.**

Cultivated. W6 316. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633531. Phaseolus coccineus L.**

Cultivated. W6 317. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633532. Phaseolus coccineus L.**

Cultivated. W6 318. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633533. Phaseolus vulgaris L.**

Cultivated. W6 319. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633534. Phaseolus coccineus L.**

Cultivated. W6 320. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633535. Phaseolus vulgaris L.**

Cultivated. W6 321. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633536. Phaseolus vulgaris L.**

Cultivated. W6 322. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633537. Phaseolus vulgaris L.**

Cultivated. W6 323. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633538. Phaseolus vulgaris L.**

Cultivated. W6 324. Collected 06/22/1989 in Puerto Rico.

Unknown source. Received 06/23/1989.

**PI 633539. Phaseolus vulgaris L.**

Cultivated. W6 325. Collected 06/22/1989 in Puerto Rico.

The following were donated by Dermot P. Coyne, University of Nebraska, Department of Horticulture, 386 Plant Sciences Hall, Lincoln, Nebraska 68583-0724, United States. Received 06/23/1989.

**PI 633540. Phaseolus vulgaris L.**

Cultivated. Pompadour B; W6 326. Collected 06/23/1989 in Puerto Rico.

The following were developed by Reid G. Palmer, USDA, ARS, Iowa State University, Department of Agronomy, Ames, Iowa 50011, United States; Halina Knap, Clemson University, Crop Sciences, 272P @ A Building, Clemson, South Carolina 29631, United States; A.L. Matson, Soybean Research Foundation, 115 N. Perry Street, Mason City, Illinois 62664, United States. Donated by Reid G. Palmer, USDA, ARS, Iowa State University, Department of Agronomy, Ames, Iowa 50011, United States. Received 04/29/2003.

**PI 633541. Glycine max (L.) Merr.**

Genetic. Pureline. T368; SY 311001. GS-37. Pedigree - Single plant selection in the F12 generation in a cross of 'SRF 200' X ('SRF 300' X 'Tracy'). SRF 200 is a selection from 'Amsoy 71' X ['Amsoy' (5) X 'SRF 350']. SRF 350 is a selection from 'Wayne' (3) X D61-5141. D61-5141 is a narrow leaf selection from 'Dorman' (5) X PI 181537. SRF 300 is a

selection from Wayne (6) X D61-5141. Genetic Type T368 is an apetalous, male-sterile line of soybean found by the Soybean Research Foundation as a single plant in the F12 generation in a cross of 'SRF 200' X ('SRF 300' X 'Tracy'). Genetic studies indicated that a single recessive nuclear gene is responsible for this apetalous, highly male-sterile trait in soybean (Skorupska et al., 1993). The morphological features are lack of standard petal, lateral wings, keel petals, and the appearance of an elongated sepaloid calyx. Gynoecia were characterized by enlarged unfused ovaries and exposed ovules. The mutant line is maintained as the heterozygote (T368H). The mutant line has purple flowers, gray pubescence, erect and normal pubescence, brown pod, yellow seed coat, buff hila, and is maturity group I. Different types of malformations were observed in androecium development in mutant plants. Mutant flowers had only two to four stamens, which were unable to form a normal staminal column. A full complement of.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 05/27/2003.

**PI 633542 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH51K". PVP 200300222.

**PI 633543 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH86T". PVP 200300223.

**PI 633544 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH890". PVP 200300224.

**PI 633545 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PHAPV". PVP 200300225.

**PI 633546 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PHB6V". PVP 200300226.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 05/27/2003.

**PI 633547 PVPO. *Poa pratensis* L.**  
Cultivar. "SR 2284". PVP 200300227.

The following were developed by Bayer Cropscience, United States. Received 05/27/2003.

**PI 633548 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "FIBERMAX 5024 BXN"; BXN 1. PVP 200300228.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 05/27/2003.

**PI 633549 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH183". PVP 200300230.

**PI 633550 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "PH3PR". PVP 200300231.

**PI 633551 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PH58C". PVP 200300232.

**PI 633552 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PH5DP". PVP 200300233.

**PI 633553 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PH6HR". PVP 200300234.

**PI 633554 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PH77P". PVP 200300235.

**PI 633555 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PH87P". PVP 200300236.

**PI 633556 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PH9AR". PVP 200300237.

**PI 633557 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PHB18". PVP 200300238.

**PI 633558 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PHB5R". PVP 200300239.

**PI 633559 PVPO. Zea mays L. subsp. mays**  
Cultivar. "PHBAB". PVP 200300240.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 05/27/2003.

**PI 633560 PVPO. Festuca rubra L. subsp. rubra**  
Cultivar. "SR 5210". PVP 200300242. Strong, creeping, red fescue.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 05/27/2003.

**PI 633561 PVPO. Poa pratensis L.**  
Cultivar. "A97-1432". PVP 200500014; PVP 200300243.

The following were developed by Monsanto Technology LLC, United States. Received 05/27/2003.

**PI 633562 PVPO. Zea mays L. subsp. mays**  
Cultivar. "I180581". PVP 200300245.

**PI 633563 PVPO. Zea mays L. subsp. mays**  
Cultivar. "I181334". PVP 200300246.

**PI 633564 PVPO. Zea mays L. subsp. mays**  
Cultivar. "I325350". PVP 200300247.

**PI 633565 PVPO. Zea mays L. subsp. mays**

Cultivar. "I325369". PVP 200300248.

**PI 633566 PVPO. Zea mays L. subsp. mays**  
Cultivar. "I918166". PVP 200300249.

The following were developed by Tadesse Mebrahtu, Virginia State University, P.O. Box 9061, Petersburg, Virginia 23806, United States. Received 05/27/2003.

**PI 633567. Glycine max (L.) Merr.**  
Cultivar. "Owens"; VS96-220. PVP 200300250. Pedigree - Derived from hybridization of PI 417288 x T145. Released 05/08/2003. Large-seeded intended for use as vegetable soybean. Maturity group V. Two-year average green pod yield 13,742 kg ha<sup>-1</sup>. Green bean protein 35.0%, 63 mg/g sucrose and 8.0% oil with 45.3% of the oil as oleic acid. Two-year average mature seed yield of 2795 kg ha<sup>-1</sup> with a protein content of 44.1% and oil content of 12.2% with 24.2% of the oil as oleic acid. Determinate growth habit with plant height of 44 cm, white flowers and tawny pubescence. Seed size 20 g per 100 seeds with dark brown coat and hila color. Susceptible to race 14 soybean cyst nematode. Resistant to race 2 of the phytophthora root rot pathogen and susceptible to race 33. Moderately susceptible to sudden death syndrome and frog-eye leaf spot.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 05/27/2003.

**PI 633568 PVPO. Poa pratensis L.**  
Cultivar. "VOYAGER II". PVP 200300251.

The following were developed by The J.C. Robinson Seed Company, Waterloo, Nebraska, United States. Received 05/27/2003.

**PI 633569 PVPO. Zea mays L. subsp. mays**  
Cultivar. "A60059". PVP 200300252.

**PI 633570 PVPO. Zea mays L. subsp. mays**  
Cultivar. "W23129". PVP 200300253.

The following were developed by Monsanto Company, 800 North Lindbergh Blvd., St. Louis, Missouri 63167, United States. Received 05/27/2003.

**PI 633571 PVPO. Triticum aestivum L.**  
Cultivar. "BENTON". PVP 200300255.

**PI 633572 PVPO. Triticum aestivum L.**  
Cultivar. "DOUGLAS". PVP 200300256.

The following were developed by The Regents of the University of California, 1111 Franklin Street, Oakland, California 94607, United States. Received 05/27/2003.

**PI 633573 PVPO. Phaseolus vulgaris L.**

Cultivar. "CANARIO 707". PVP 200300257.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 05/27/2003.

**PI 633574 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH81C". PVP 200300258.

The following were developed by Michigan State University, Department of Crop Science, East Lansing, Michigan, United States. Received 05/27/2003.

**PI 633575 PVPO. *Triticum aestivum* L.**  
Cultivar. "MSU D6234". PVP 200300259.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Jardim Botanico da Universidade de Coimbra, Arcos do Jardim, Coimbra, Coimbra 3000-393, Portugal. Received 05/30/1990.

**PI 633576. *Amaranthus deflexus* L.**  
Wild. AMA 76/79; AMA 76; Ames 13779. Collected in Portugal.

The following were donated by Station Nationale d'Essais de Semences, Service Botanique, La Miniere, F. Guyancourt, Versailles, Yvelines 78000, France; Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 05/30/1990.

**PI 633577. *Amaranthus deflexus* L.**  
Wild. AMA 97/86; AMA 97; Ames 13785. Collected 05/30/1990 in France.  
Samen-Versuchsstat, Guyancourt.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Botanic Garden - Copenhagen, University of Copenhagen, Oster Farimagsgade 2B, Copenhagen, Copenhagen DK-1353, Denmark. Received 05/30/1990.

**PI 633578. *Amaranthus acutilobus* Uline & W. L. Bray**  
Wild. AMA 56/88; AMA 56; Ames 13786. The leaf blade is deeply notched at the apex.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Botanischer Garten der Westf. Wilhelms-Universitat, Schlossgarten 3, Munster, N. Rhine-Westphalia D-48149, Germany. Received 05/30/1990.

**PI 633579. *Amaranthus acutilobus* Uline & W. L. Bray**  
Wild. AMA 63/79; AMA 63; Ames 13787. The petiole is as long or longer than the blade. The blade has a distinctive 0.5 cm notch at the apex.

The following were donated by Dominion Arboretum and Botanic Garden, Plant Research Institute, Ottawa, Ontario, Canada; Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 05/30/1990.

**PI 633580. *Amaranthus albus* L.**

Wild. AMA 65/80; AMA 65; Ames 13788. Collected in Saskatchewan, Canada. Latitude 50 deg. 8' N. Longitude 102 deg. 40' W. Kipling. The blades are oval. The young leaves have intense coloring under the blade.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Jardin Botanico de Cordoba, Apdo. 3048, Cordoba, Cordoba 14080, Spain. Received 05/30/1990.

**PI 633581. *Amaranthus albus* L.**

Wild. AMA 96/87; AMA 96; Ames 13789. Collected 05/30/1990 in Cordoba, Spain. Latitude 38 deg. 19' N. Longitude 5 deg. 16' W. Penarroya-Pueblonuevo. The growth form is somewhat spreading.

The following were donated by Karl Hammer, Inst. fur Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany; University of Debrecen, Botanical Garden, Debrecen, Hajdu-Bihar, Hungary. Received 12/07/1993.

**PI 633582. *Amaranthus crispus* (Lesp. & Thevenau) A. Braun ex J. M. Coult. & S. Watson**

Wild. AMA 14; AMA 14\89; Ames 21715.

The following were collected by Jardin Botanico de Cordoba, Apdo. 3048, Cordoba, Cordoba 14080, Spain. Donated by Karl Hammer, Inst. fur Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany; Jardin Botanico de Cordoba, Apdo. 3048, Cordoba, Cordoba 14080, Spain. Received 12/07/1993.

**PI 633583. *Amaranthus muricatus* (Moq.) Hieron.**

Wild. AMA 95; AMA 95/90; Ames 21716. Collected 12/07/1993 in Cordoba, Spain. A prostrate plant that continues to flower after first seed maturity. The root is thick and could be a storage organ. Observed by David Brenner, 1994, in a greenhouse in Iowa.

The following were donated by Hortus Botanicus Pekinensis, Instituti Botanici Academiae Sinicae, Beijing, Beijing 100092, China; Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 02/20/1981.

**PI 633584. *Amaranthus cruentus* L.**

Landrace. RRC 27; RRC 78S-27; Ames 1981. The seeds are dark brown, flowers red, leaves green. The RRC class type is: African. It is early maturing and a prolific seed producer. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were collected by H. Hauptli, University of California, Department of Agronomy and Range Science, Davis, California 95616, United States. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

**PI 633585. *Amaranthus cruentus* L.**

Landrace. HH 88; RRC 624; Ames 5275. Collected 12/1979 in Chimaltenango, Guatemala. Latitude 14 deg. 48' 57'' N. Longitude 90 deg. 45' 21'' W. Elevation 1790 m. Village Choatalum. The seeds are black and light tan, flowers green, red and marbled, leaves green. The RRC class type is Guatemalan. It is said to be used as vegetable and grain. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were collected by Danny Cunningham, Peace Corps Resource Center, Box 2534, Dakar, B.P. 2534, Senegal. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

**PI 633586. *Amaranthus palmeri* S. Watson**

Cultivated. Population. RRC 654; Mbum Bambara; Ames 5305. Collected 10/01/1980 in Dakar, Senegal. Latitude 14 deg. 40' 15'' N. Longitude 17 deg. 26' 17'' W. Dakar. The seeds are black, flowers green, leaves green and variegated. The RRC class type is: weed. 'Mbum Bambara' It is said to be used as a vegetable; not appealing, and female plants have long prickly bracts. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

**PI 633587. *Amaranthus palmeri* S. Watson**

Cultivated. RRC 655; Mbum Bambara; Ames 5306. Collected 10/01/1980 in Senegal. The seeds are black, flowers green, leaves green and variegated. The RRC class type is: weed. 'Mbum Bambara' It is said to be used as a vegetable. The female plants have long prickly bracts. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Charles Daloz, Rodale Research Center, RD1, BOX 323, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

**PI 633588. *Amaranthus dubius* Mart. ex Thell.**

Cultivar. "Calaloo"; RRC 661; Ames 5312; 2. Collected 01/01/1981 in Jamaica. The seeds are black, flowers green, leaves green. The RRC class type is: vegetable. 'Calaloo' Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were collected by Gary Nabhan, Meals for Millions, Freedom from Hunger Foundation, 209 East 16th St. P.O. Box 42622, Tucson, Arizona, United States. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

**PI 633589. *Amaranthus hypochondriacus* L.**

Landrace. GN 975; RRC 539; Guegui; Ames 5321. Collected 11/01/1978 in Chihuahua, Mexico. Latitude 27 deg. 25' N. Longitude 108 deg. 30' W. Rancho el Mesquite near Chinipas. The seeds are white, flowers red and green, leaves rufescent. The RRC class type is: mercado. It is used as a vegetable when young and is short for this type. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA. Cultivated by Warihio Indians. Used as a leafy vegetable in early stage (3-5 weeks) and as grain for tamales, atole, pinole.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Yoo, Dr. Yoo Seed Co., Dr. Yoo Farm, P.O. Box 290, College Park, Maryland 20740, United States. Received 04/15/1986.

**PI 633590. *Amaranthus tricolor* L.**

Cultivar. RRC 699; Chinese spinach; Ames 5377; Light Green. Collected 06/01/1981 in Unknown. The seeds are black, flowers green, leaves green. The RRC class type is: cultivated vegetable. 'Chinese spinach' is a light green color and looks like 'white leaf.' Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA. It is a very nice vegetable.

**PI 633591. *Amaranthus tricolor* L.**

Cultivar. RRC 700; Chinese spinach; Ames 5378; Red Stripe. Collected 06/01/1981 in Unknown. The seeds are black, leaves variegated. The RRC class type is: cultivated vegetable. 'Chinese spinach.' It has a red stripe and is marked like 'tiger leaf.' Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were collected by Andrew Tucker, APO 40, Colima, Colima, Mexico. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

**PI 633592. *Amaranthus cruentus* L.**

Wild. Sample #1; RRC 1191; Ames 5664. Collected 12/01/1983 in Colima, Mexico. Latitude 19 deg. 13' N. Longitude 103 deg. 45' W. Colima. The seeds are black, flowers pink and red, leaves green, variegated and amaranthine. The RRC class type is weed, unique. It has traits of both weedy *A. hybridus* and *A. cruentus*. It is bushy and the seeds shatter easily. It looks like RRC #1154. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA. In Colima it grows one meter tall with a well developed tap root. Grows best in the long-days of summer.

**PI 633593. *Amaranthus palmeri* S. Watson**

Wild. Sample #2; RRC 1192; Ames 5665. Collected 12/01/1983 in Colima, Mexico. Latitude 19 deg. 13' N. Longitude 103 deg. 45' W. Colima. The seeds are black, flowers green and pinkish-green, leaves green and variegated. The RRC class type is: weed. Some leaves have a distinct, pale variegation. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA. Common weedy amaranth in Colima. The foliage is used as a vegetable when tender, but it is not cultivated. Often grows ten feet tall in fertile soil.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Sunrise Enterprises, P.O. Box 10058, Elmwood, Connecticut, United States. Received 04/15/1986.

**PI 633594. *Amaranthus tricolor* L.**

Cultivar. "White Round Leaf"; 1Q2; RRC 1239; Ames 5669. Collected 02/1985 in Unknown. The seeds are black, flowers green, leaves green. The RRC class type is: cultivated vegetable. 'White round leaf' cultivar. In the greenhouse it was uniform and an all green 'white leaf' vegetable type. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

**PI 633595. *Amaranthus tricolor* L.**

Cultivar. 1Q1; RRC 1240; Red Stripe Leaf; Ames 5670. Collected 02/1985 in Unknown. The seeds are black, leaves variegated. The RRC class type is: cultivated vegetable. "Red stripe leaf" cultivar. In the greenhouse it was a uniform 'tiger leaf' vegetable. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; V. K. Gupta, University of Botswana, National Institute of Development, Research and Documentatin, Private Bag 0022, Gaborone, South-East, Botswana. Received 04/15/1986.

**PI 633596. *Amaranthus hypochondriacus* L.**

Cultivar. "Jumla"; RRC 1221; Ames 5691. Collected 09/01/1984 in Nepal. Developed in Kenya. Pedigree - Improved in Kenya from germplasm that originated in Nepal. The seeds are white, flowers light pink and dark pink, leaves variegated. The RRC class type is: Nepal. The plants are short-statured and early maturing in Kenya, taller and not as uniform at RRC in Pennsylvania. Observations from the Rodale Research Center, 1988 Rodale Amaranth Germplasm Catalog. Emmaus, PA.

The following were developed by Marvin L. Risius, Pennsylvania State University, Department of Agronomy, 116 ASI Bldg., University Park, Pennsylvania 16802, United States. Received 05/23/2003.

**PI 633597. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "PA8769-158". Pedigree - Titan / Caldwell, using bulk breeding method. Grain yield, test weight, and grain quality high. Maturity midseason and plant height 123 cm. Anthers yellow while coleoptile and seedlings do not exhibit anthocyanin. Spikes fusiform, middense, and apically awnletted. Kernels red, soft, midlong and ovate with a middeep crease, rounded cheeks, and midsized noncollared brush. Soft wheat milling and baking properties very good. Moderately susceptible to powdery mildew (*Erysiphe graminis*) and has gene Sr10 for resistance to stem rust (*Puccinia graminis*). Resistance to Hessian Fly (*Mayetiola destructor*(say)) includes biotypes GP, B, and F, but susceptibility to biotypes D and L.

The following were donated by Will Bonsall, Scatterseed Project, 39 Bailey Road, Industry, Maine 04938, United States. Received 04/01/1998.

**PI 633598. *Solanum tuberosum* L.**  
Cultivar. "KARNA"; 3246; Q 37629.

The following were donated by Chuck Brown, USDA, ARS, WSU Irrigated Ag. Extension Center, 24106 N. Bunn Road, Prosser, Washington 99350, United States. Received 09/12/2000.

**PI 633599. *Solanum tuberosum* L.**  
Cultivar. "97A-63"; Q 42813. Late blight cultivar.

The following were donated by Hector Lozoya, Pictipapa, Conjunto Sedagro, Dom. conocido, Metepec, Mexico 52142, Mexico. Received 03/21/2001.

**PI 633600. *Solanum tuberosum* L.**  
Cultivar. "A9520-5"; Q 42943; Q 43230. Late blight cultivar.

The following were donated by Joseph Goffreda, Cook College - Rutgers University, Rutgers Fruit Research & Extension Center, 283 Route 539, Cream Ridge, New Jersey 08514, United States. Received 09/12/2002.

**PI 633601. *Solanum tuberosum* L.**  
Cultivar. "Eden"; Q 43812.

**PI 633602. *Solanum tuberosum* L.**  
Cultivar. "Sheriff"; Q 43813.

The following were donated by Merja Vetelainen, Nordic Genebank, Alnarp, Sweden. Received 10/18/2002.

**PI 633603. *Solanum tuberosum* L.**  
Cultivar. "Pito"; Nordic Gene Bank; Q 43827.

The following were donated by Sandra Goodfellow, Scottish Agricultural Science Agency, East Craigs, Edinburgh, Scotland EH12 8NJ, United Kingdom. Received 10/29/2002.

**PI 633604. *Solanum tuberosum* L.**  
Cultivar. "Teena"; Q 43830.

**PI 633605. *Solanum tuberosum* L.**  
Cultivar. "Torridon"; Q 43831.

**PI 633606. *Solanum tuberosum* L.**  
Cultivar. "Charlotte"; Q 43832.

The following were donated by Ethnogens Seed Company, P.O. Box 8338, Columbus, Ohio 43201-8338, United States. Received 06/04/2003.

**PI 633607. *Ipomoea tricolor* Cav.**  
Cultivar. "Heavenly Blue". Developed in United States.

The following were developed by Steve St. Martin, Ohio State University, Department of Horticulture & Crop Science, 202 Kottman Hall, Columbus, Ohio 43210-1086, United States; R. W. Cooper, San Diego State College, San Diego, California, United States; Ron Fioritto, Ohio State University, Ohio Agricultural Research & Development Center, Dept. of Horticulture & Crop Science, Wooster, Ohio 44691, United States; Anne E. Dorrance, Ohio State University, OARDC - Department of Plant Pathology, 1680 Madison Avenue, Wooster, Ohio 44691-4096, United States. Received 05/30/2003.

**PI 633608. *Glycine max* (L.) Merr.**

Cultivar. "Dilworth". CV-457. Pedigree - Chapman x Probst. Indeterminate stem habit, purple flowers, tawny pubescence, brown pods, and dull yellow seed coats with black hila. Maturity group III (relative maturity 3.1), generally adapted as a full-season cv. from 40 to 42 deg. N latitude. Average mature plant height of 81 cm, average lodging score of 1.5 on a 1 to 5 scale, where 1 is erect and 5 is prostrate. Seed protein and oil contents are 409 g kg<sup>-1</sup> and 210 g kg<sup>-1</sup>, respectively. 100 seed weight of 14.4g. Carries the Rps1-k and Rps3-a genes for race-specific resistance to phytophthora rot. Moderately susceptible to brown stem rot (*Phialophora gregata*). Named in honor of Alvin Dilworth, OARDC farm manager from July 1958 to April 1976.

The following were developed by Robert D. Riggs, University of Arkansas, Department of Plant Pathology, 217 Plant Science Building, Fayetteville, Arkansas 72701, United States; John Rupe, University of Arkansas, Department of Plant Pathology, PTSC 217, Fayetteville, Arkansas 72701, United States; Clay H. Sneller, Ohio State University, O.A.R.D.C., 1680 Madison Avenue, Wooster, Ohio 44691, United States; Pengyin Chen, University of Arkansas, Department of Crop, Soil & Environmental Sciences, Soybean Breeding and Genetics, Fayetteville, Arkansas 72701, United States. Received 05/27/2003.

**PI 633609. *Glycine max* (L.) Merr.**

Cultivar. "Lonoke"; R95-2210. CV-461. Pedigree - Manokin x Asgrow 6297. Late-Maturity Group V determinate cultivar that matures 2 to 4 days later than Hutcheson. Leaves ovate, green, white flowers gray pubescence, and tan pod walls. Mature plants average 10 cm taller than Hutcheson. Seed have yellow cotyledons with dull yellow seed coats and buff hila, and average about 1 mg smaller than seed of Hutcheson. In 79 full-season tests in the southern states, average seed yield was about 3% and 6% greater than check cvs. Hutcheson and Manokin, respectively. Widely adapted to the areas between 33 and 37 deg. N lat. Lodging, shattering, and average seed quality scores similar to those of Hutcheson. Seed protein slightly (5-10 g kg<sup>-1</sup>) higher and oil content slightly (5-10 g kg<sup>-1</sup>) lower than Hutcheson. Resistant to southern stem canker (*Diaporthe phaseolorum*) and soybean cyst nematode (*Heterodera glycines*) races 3 and 14. Mod. resistant to phytophthora rot (*Phytophthora sojae*), races 5 and 9 of soybean cyst nematode, reniform nematode (*Rotylenchulus*).

**PI 633610. *Glycine max* (L.) Merr.**

Cultivar. "Desha"; R92-1258. CV-455. Pedigree - Hutcheson x Walters. Maturity Group VI with high yield potential, good standability, shattering resistance, and disease resistance. Widely adapted to the areas between 33 and 37 deg. N lat. but appears to be best adapted to

Arkansas and Mississippi delta region. Determinate cv. that grows 85 to 100 cm tall with green ovate leaves. Flowers white, gray pubescence, and tan pod walls. Seed have yellow cotyledons with dull yellow seed coats and buff hila, and average about 14 g per 100 seeds. Lodging, shattering, and average seed quality scores similar to those of check cultivar Dillon. Seed protein content slightly (5-10 g kg<sup>-1</sup>) lower and oil content slightly (5-10 g kg<sup>-1</sup>) higher than Dillon. Resistant to southern stem canker (*Diaporthe phaseolorum*) and soybean mosaic virus. Susceptible to soybean cyst nematode (*Heterodera glycines*), phytophthora root rot (*Phytophthora sojae*), reniform nematode (*Rotylenchulus reniformis*), root knot nematode (*Meloidogyne arenaria* and *Meloidogyne*).

The following were developed by George Pittarelli, USDA-ARS, Germplasm Quality & Enhancement Lab, Bldg 009, Rm 3, BARC-West, Beltsville, Maryland 20705, United States; Thomas E. Devine, USDA, ARS, Sustainable Agricultural Systems Laboratory, Building 001, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 06/02/2003.

**PI 633611. *Nicotiana gossei* Domin**

Cultivar. "GWP-3". Pedigree - *Nicotiana gossei* germplasm, PI 230953, originally from Australia, was subjected to colchicine treatment to induce chromosome doubling to produce the tetraploid form. Selected for vigorous growth after colchicine treatment and six generations of selfing in the field. A tetraploid with 72 chromosomes. Produced by colchicine induced chromosome doubling and is capable of increasing the production of biopesticides by 80% compared to diploid 2n *N. gossei*. Although these sugar esters are effective as biopesticides, the quantity of these compounds produced by typical *N. gossei* plants is relatively small. These biopesticides are sugar esters demonstrated in US patent No. 5,260,281 (Pittarelli et al., 1993) to control several insect species without leaving toxic residues on plants. The biopesticides have been shown to have activity against: Greenhouse whitefly, *Trialeurodes vaporariorum*, Sweet potato whitefly, *Bemisia tabaci*, Green peach aphids, *Myzus persica*, two spotted spider mite, *Tetranychus urtica*, Pear psylla, *Psyllia pyricola*, and Colorado potato beetle, *Leptinotarsa decemlineata*. Grows to a height of 1 1/2 meters, has sturdy stems, and thicker leaves than the diploid form.

The following were developed by Jose Fernandez-Martinez, Instituto de Agricultura Sostenible, Apartado 4084, Alameda del Obispo s/n, Cordoba, Cordoba 14080, Spain; J. Dominguez, CIFA-Junta de Andalucia, Departamento de Mejora y Agronomia, Apartado 4240, Cordoba, Cordoba, Spain; J. Munoz-Ruz, Instituto de Agricultura Sostenible, Dept. de Mejora y Agronomia, CSIC, Apdo. 4084, E-14080, Cordoba, Cordoba, Spain; B. Perez-Vich, Instituto de Agricultura Sostenible, Apartado 4080, E-14080, Cordoba, Cordoba 14071, Spain; Leonardo Velasco, Institute for Sustainable Agriculture, Alameda del Obispo s/n, Apartado 4084, Cordoba, Cordoba 14080, Spain; B. Akhtouch, Instituto de Agricultura Sostenible, Apartado 4084, Cordoba, Cordoba 14071, Spain; J.M. Melero-Vara, Instituto de Agricultura Sostenible, Apartado 4084, Cordoba, Cordoba 14071, Spain. Donated by Jose Fernandez-Martinez, Instituto de Agricultura Sostenible, Apartado 4084, Alameda del Obispo s/n, Cordoba, Cordoba 14080, Spain. Received 06/05/2003.

**PI 633612. *Helianthus annuus* L.**

Breeding. K-96. GP-273. Pedigree - Selected for broomrape resistance

from the germplasm accession KREM-94-8 from the Institute of Field and Vegetable Crops, Novi Sad, Yugoslavia. Plants of the original population of the germplasm accession KREM-94-8 were initially evaluated for broomrape reaction (race F) in the greenhouse in 1996. Identified resistant plants were selected and selfed, which was followed by three additional generations of selection and selfing. After this process the derived germplasm line, formed by bulking equal numbers of seeds from resistant plants, was confirmed as true breeding for resistance to race F of broomrape. The line was also found to be uniformly resistant to race E of broomrape. This is a non-restorer line.

**PI 633613. *Helianthus annuus* L.**

Breeding. L-86. GP-274. Pedigree - Selected for broomrape resistance from USDA-ARS germplasm accession Ames 3377, which corresponds with the Russian cultivar VIR-115. Plants of the original population of the germplasm accession Ames 3377 was initially evaluated for broomrape reaction (race F) in the greenhouse in 1996. Identified resistant plants were selected and selfed, which was followed by three additional generations of selection and selfing. After this process the derived germplasm line, formed by bulking equal numbers of seeds from resistant plants, was confirmed as true breeding for resistance to race F of broomrape. The line was also found to be uniformly resistant to race E of broomrape. This is a non-restorer line.

**PI 633614. *Helianthus annuus* L.**

Breeding. P-96. GP-275. Pedigree - Selected for broomrape resistance from accession PER-94-5 from the Institute of Field and Vegetable Crops, Novi Sad, Yugoslavia. Plants of the original population of the germplasm accession PER-94-5 were initially evaluated for broomrape reaction (race F) in the greenhouse in 1996. Identified resistant plants were selected and selfed, which was followed by three additional generations of selection and selfing. After this process the derived germplasm line, formed by bulking equal numbers of seeds from resistant plants, was confirmed as true breeding for resistance to race F of broomrape. The line was also found to be uniformly resistant to race E of broomrape. This is a non-branched line carrying genes for fertility restoration of the PET1 cytoplasmic male sterility.

**PI 633615. *Helianthus annuus* L.**

Breeding. R-96. GP-276. Pedigree - Selected for broomrape resistance from the germplasm accession ROD-94-15 from the Institute of Field and Vegetable Crops, Novi Sad, Yugoslavia. Plants of the original population of the germplasm accession ROD-94-15 were initially evaluated for broomrape reaction (race F) in the greenhouse in 1996. Identified resistant plants were selected and selfed, which was followed by three additional generations of selection and selfing. After this process the derived germplasm line, formed by bulking equal numbers of seeds from resistant plants, was confirmed as true breeding for resistance to race F of broomrape. The line was also found to be uniformly resistant to race E of broomrape. This is a non-restorer line.

The following were developed by Hans-Henning Muendel, Agriculture Canada, Lethbridge Research Station, Crop Sciences Section, Research Station, Lethbridge, Alberta T1J 4B1, Canada; F. Kiehn, Agriculture and Agri-Food Canada, Research Centre, Unit 100 - 101 Route 100, Morden, Manitoba R6M 1Y5, Canada; H.C. Huang, Agriculture and Agri-Food Canada, Lethbridge Research

Center, P.O. Box 3000, Lethbridge, Alberta T1J 4B1, Canada; G. Saindon, Agriculture and Agri-Food Canada, Potato Research Station, P.O. Box 20280, Fredericton, New Brunswick E3B 4Z7, Canada; Robert L. Conner, Agriculture and Agri-Food Canada, Morden Research Station, Unit 100-101, Morton, Manitoba R6M 1Y5, Canada. Received 05/13/2003.

**PI 633616. *Phaseolus vulgaris* L.**

Cultivar. "BLACK VIOLET"; L95F025; 5605. CV-213. Pedigree - 1989 cross, 89139 resulting from crossing the black varieties UI906 and WBR22-3. Released 2003. Large-seeded, purple-podded, black common bean. Tested in the narrow-row dry bean registration trials in Manitoba for 2 yrs. High-yielding upright cv. with good resistance to white mold (*Sclerotinia sclerotiorum*). Particularly adapted to narrow-row production high heat unit areas of southern Manitoba of western Canada.

The following were developed by Hans-Henning Muendel, Agriculture Canada, Lethbridge Research Station, Crop Sciences Section, Research Station, Lethbridge, Alberta T1J 4B1, Canada. Received 05/13/2003.

**PI 633617. *Phaseolus vulgaris* L.**

Cultivar. "ARIKARA YELLOW"; 5567. Pedigree - Selection from a landrace made by Oscar H. Will in the early 1880's in North Dakota. Released 2002. Early maturing, bush type, determinate, heritage bean with a tan-yellow seed belonging to the Canario mexicano market class, with wide adaptation on the prairies. One of the earliest maturing dry beans, comparable to AC Redbond, earlier than the US standard varieties grown in southern Alberta, such as NW63 (small red), Othello (pinto), US1140 (great northern), and Viva (pink). Seed weight larger than most western-prairie market classes, on the large end of pinto. Lodging resistance excellent. Moderately resistant to white mold with most standard checks being more susceptible.

The following were developed by Hans-Henning Muendel, Agriculture Canada, Lethbridge Research Station, Crop Sciences Section, Research Station, Lethbridge, Alberta T1J 4B1, Canada; F. Kiehn, Agriculture and Agri-Food Canada, Research Centre, Unit 100 - 101 Route 100, Morden, Manitoba R6M 1Y5, Canada; H.C. Huang, Agriculture and Agri-Food Canada, Lethbridge Research Center, P.O. Box 3000, Lethbridge, Alberta T1J 4B1, Canada; G. Saindon, Agriculture and Agri-Food Canada, Potato Research Station, P.O. Box 20280, Fredericton, New Brunswick E3B 4Z7, Canada; Robert L. Conner, Agriculture and Agri-Food Canada, Morden Research Station, Unit 100-101, Morton, Manitoba R6M 1Y5, Canada. Received 05/13/2003.

**PI 633618. *Phaseolus vulgaris* L.**

Cultivar. "EARLY ROSE"; L94C356; 5620. CV-214. Pedigree - Simple cross made in 1989, 89090C = 55038/5524, both parents being pink lines. Released 2003. Very early maturing pink common bean. High yielding, with semi-erect growth habit. Resistant to Bean Common Mosaic Virus (BCMV) and bacterial wilt (*Curtobacterium flaccumfaciens*). Adapted to narrow-row production across southern western Canada.

The following were developed by Hans-Henning Muendel, Agriculture Canada, Lethbridge Research Station, Crop Sciences Section, Research Station, Lethbridge, Alberta T1J 4B1, Canada; G. A. Kemp, Canada Department of

Agriculture, Lethbridge Research Station, Plant Science Section, Lethbridge, Alberta T1J 4B1, Canada; F. Kiehn, Agriculture and Agri-Food Canada, Research Centre, Unit 100 - 101 Route 100, Morden, Manitoba R6M 1Y5, Canada; H.C. Huang, Agriculture and Agri-Food Canada, Lethbridge Research Center, P.O. Box 3000, Lethbridge, Alberta T1J 4B1, Canada; G. Saindon, Agriculture and Agri-Food Canada, Potato Research Station, P.O. Box 20280, Fredericton, New Brunswick E3B 4Z7, Canada; Robert L. Conner, Agriculture and Agri-Food Canada, Morden Research Station, Unit 100-101, Morton, Manitoba R6M 1Y5, Canada. Received 05/13/2003.

**PI 633619. Phaseolus vulgaris L.**

Cultivar. "MORDEN003"; L94A001; 5603. CV-215. Pedigree - Complex cross made in 1987, A8732 = OACSeaforth/4/Redkcloud/Kentwood/3/Redkcloud/Kentwood//Swan Valley. Released 2003. Early maturing, generally anthracnose-resistant, and with low white mold infection, navy bean. Particularly well adapted to Manitoba narrow-row growing conditions, maturing significantly earlier than the check variety, Envoy.

The following were donated by USDA, ARS, Univ. of Illinois, Illinois Agr. Exp. Sta., Urbana, Illinois 61801, United States. Received 1963.

**PI 633620. Glycine max (L.) Merr.**

Breeding. Pureline. NC55. Black-seeded strain. No maturity group found. Not intended for commercial production. For research use to study effect of soybeans on nematode population. Resistant cyst nematode, Heterodera glycines Ichinohe. Cultivated.

The following were donated by Virginia Polytechnic Institute and State University, Virginia Agr. Exp. Sta., Blacksburg, Virginia 24061, United States. Received 1961.

**PI 633621. Glycine max (L.) Merr.**

Cultivated. Early Woods Yellow. Good yield. Resistant weather damage. Small, strong upright stem. 36" tall. Excellent shattering resistance (even on light soil). Approx. 300 pods/stalk. Medium large yellow beans. Good oil content. Matures 125 days. Cultivated.

The following were donated by Clemson University, South Carolina Agric. Exp. Station, Clemson, South Carolina 29817, United States. Received 1961.

**PI 633622. Glycine max (L.) Merr.**

Cultivar. Pureline. CNS 4. Pubescence. Tawny. Flowers purple. Shattering. Yellow seeds (with black hilum) and cotyledons. Seeds 3500 per lb. Oil 19.7%. Protein 44.8%. iodine number, 130. Maturity, group VII. Cultivated. Literature reference -- USDA Soybean Variety Names, Nov. 1957, p. 7.

The following were developed by Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States. Received 05/19/2003.

**PI 633623. Oryza sativa L.**

Cultivar. Pureline. "SIERRA"; RU9203126; Tx2126. Pedigree - Dellmont / (B8462 T3-710) Basmati 370//CI9881/PI 331581/3/Rexmont. Released 2003. Early maturing, long grain rice that can be harvested in about 113 days. Semidwarf plant type and is glabrous. Grain aromatic. When cooked, grain elongates dramatically as is typical of basmati-type rice. High amylose content of 26% as is typical of rice suited for parboiling and canning. Has an intermediate gelatinization temperature as indicated by an alkali spreading value of 4.

The following were developed by Marco A. Marchetti, USDA-ARS, Rice Research Station, Texas A&M Experiment Station, Beaumont, Texas 77713, United States; Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States; Robert G. Fjellstrom, USDA, ARS, Rice Research Unit, 1509 Aggie Dr., Beaumont, Texas 77713, United States; Christine Bergman, USDA-ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States; Concetta Bormans, Texas A&M University, Dept of Biochemistry & Biophysics, MS2128, College Station, Texas 77843-2128, United States; W.D. Park, Borlaug Center for Southern Crop Improvement, Dept. of Biochemistry & Biophysics, Texas A&M University, College Station, Texas 77843, United States. Received 05/29/2003.

**PI 633624. *Oryza sativa* L.**

Cultivar. Pureline. "SABER"; Tx6178; RU9603178. CV-117. Pedigree - Gulfmont/RU8703196//Te Qung. Released 2001. Long grain rice that can be harvested in 111 days. Semidwarf plant type and is 97 cm tall. Resistant to all but the IB49 race of *Pyricularia grisea* that is found in the United States. Improved tolerance to sheath blight disease (*Rhizoctonia solani*).

The following were developed by Stoneville Pedigreed Seed Company, Stoneville, Mississippi, United States. Received 06/17/2003.

**PI 633625 PVPO. *Gossypium hirsutum* L.**

Cultivar. "ST 457". PVP 200200277.

The following were developed by Seed Source, Inc., United States. Received 06/17/2003.

**PI 633626 PVPO. *Gossypium hirsutum* L.**

Cultivar. "CT 310 HQ". PVP 200300107.

**PI 633627 PVPO. *Gossypium hirsutum* L.**

Cultivar. "CT 120 HQ". PVP 200300108.

**PI 633628 PVPO. *Gossypium hirsutum* L.**

Cultivar. "CT 110 HQ". PVP 200300109.

**PI 633629 PVPO. *Gossypium hirsutum* L.**

Cultivar. "HQ 211 CT". PVP 200300110.

**PI 633630 PVPO. *Gossypium hirsutum* L.**

Cultivar. "CT 212 HQ". PVP 200300111.

The following were developed by California Planting Cotton Seed Distributors, 30597 Jack Ave., Shafter, California 93263, United States. Received 06/17/2003.

**PI 633631 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "ACALA SUMMIT". PVP 200300260.

The following were developed by Pioneer Hi-Bred International, Inc, United States. Received 06/17/2003.

**PI 633632 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH9HP". PVP 200300261.

**PI 633633 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "PH9HV". PVP 200300262.

The following were developed by Charles N. Lancaster, United States; Sue Lancaster, United States. Received 06/17/2003.

**PI 633634 PVPO. *Tripsacum dactyloides* (L.) L.**  
Cultivar. "TEXAS SUE". PVP 200300263.

The following were donated by Shaw Nature Reserve, Missouri Botanical Garden, P.O. Box 38, Gray Summit, Missouri 63039, United States. Received 04/01/1996.

**PI 633635. *Agastache nepetoides* (L.) Kuntze**  
Cultivated. Ames 22780. Collected 1995 in Missouri, United States. Catawissa, Washington County.

The following were collected by V. Ryzhov. Donated by V.L. Komarov Botanical Institute, Russian Academy of Sciences, 2, Prof. Popov Street, St. Petersburg, Leningrad 197376, Russian Federation. Received 01/16/1998.

**PI 633636. *Agastache rugosa* (Fisch. & C. A. Mey.) Kuntze**  
Wild. 2545; Ames 24115. Collected 1995 in Primorye, Russian Federation. Latitude 43 deg. 36' N. Longitude 131 deg. 16' E. Station Tigrovaya, Partizanskiy District.

The following were collected by K.G. Tkaczenko; V.M. Reinwald. Donated by V.L. Komarov Botanical Institute, Russian Academy of Sciences, 2, Prof. Popov Street, St. Petersburg, Leningrad 197376, Russian Federation. Received 01/16/1998.

**PI 633637. *Agastache rugosa* (Fisch. & C. A. Mey.) Kuntze**  
Wild. 2611; Ames 24116. Collected 1996 in Primorye, Russian Federation. Latitude 43 deg. 8' N. Longitude 131 deg. 54' E. In the vicinity of Vladivostok.

The following were donated by W. J. Beal Botanical Garden, Michigan State University, 412 Olds Hall, East Lansing, Michigan 48824-1047, United States. Received 03/28/1985.

**PI 633638. *Monarda fistulosa* L.**

Wild. 790; Ames 4172. Collected 1984 in Michigan, United States. Ingham County. Abandoned upland field. Perennial aromatic herb. For bee plant study.

The following were collected by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 09/11/1985.

**PI 633639. *Monarda fistulosa* L.**

Wild. 5; Ames 4551. Collected in North Dakota, United States. Latitude 46 deg. 41' 1'' N. Longitude 98 deg. 2' 48'' W. Elevation 411 m. North side of lake, Clausen Springs Recreation Area, T137N, R58W, SE 1/4 of NE 1/4, Section 18, Hastings Quad, Barnes County. Associated with *Psoralea*, *Symphoricarpos*, and *Amorpha canescens*. For bee pasture testing.

The following were donated by Lynn M. Collicutt, Agriculture Canada, Morden Research Station, P.O. Box 3001, Morden, Manitoba R0G 1J0, Canada. Received 09/24/1984.

**PI 633640. *Monarda* hybrid**

Breeding. Ames 3067. Pedigree - Parentage likely *M. fistulosa* and *M. didyma*.

**PI 633641. *Monarda* hybrid**

Breeding. Ames 3068. Pedigree - Parentage likely *M. fistulosa* and *M. didyma*.

**PI 633642. *Monarda* hybrid**

Breeding. Ames 3069. Pedigree - Parentage likely *M. fistulosa* and *M. didyma*.

The following were collected by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Lufter Xhuveli, Agricultural University of Tirana, Dept. of Agronomy, Rr."Myslym Shyri", Tirana, Albania. Donated by Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 09/30/1996.

**PI 633643. *Origanum vulgare* L.**

Wild. Al 107; Rigon; Ames 23201. Collected 08/30/1996 in Albania. Latitude 41 deg. 32' 2'' N. Longitude 20 deg. 4' 44'' E. Elevation 270 m. In village of Berkej, along road to Peshkopi, district Mat. Frequent. Highly eroded hillside along irrigation channel. Plant height 20-40cm, erect. Flowering May to September.

The following were donated by David Michener, University of Michigan, Matthaei Botanical Gardens, 1800 North Dixboro Road, Ann Arbor, Michigan 48105-9406, United States. Received 09/15/1993.

**PI 633644. *Ampelopsis japonica* (Thunb.) Makino**

Wild. Ames 21480. Collected 08/21/1993 in Russian Federation. Latitude 43 deg. 58' N. Longitude 131 deg. 29' E. West of settlement Chernyatino, west of the city Ussursk, less than 6 air-km from the Chinese border. Restricted in "Steppe" woodland on hills and slopes facing the Razdolna River. Vine scrambling to 2m over other vegetation. Fruits first white, then pinkish-blue with dark blue flecks, then turquoise blue with flecks. Said to be very restricted in distribution. One of few locations outside China. Misnamed- not native to Japan.

The following were collected by Henri Besancon, Jardin Botanique de Bordeaux, Terrasse du Jardin Public, Place Bardineau, Bordeaux, Gironde 33000, France. Donated by Jardin Botanique, Terrasse du Jardin Public, Place Bardineau, Bordeaux, Gironde 33000, France. Received 05/01/2000.

**PI 633645. *Calendula arvensis* L.**

Wild. Index Seminum 159; Ames 26043. Collected 04/1999 in Beja, Portugal. Latitude 38 deg. 8' N. Longitude 6 deg. 59' W. Barrancos. Soil full of limestone. Indigenous species of Portugal.

The following were donated by Karl Hammer, Inst. fur Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/10/1993.

**PI 633646. *Calendula suffruticosa* Vahl**

Wild. CAL 25/88; Ames 21132. Collected in Italy. Montepaone Lido.

The following were collected by Manuel Cardoso Alves, Jardim Botânico da Universidade de Coimbra, Arcos do Jardim, Coimbra, Coimbra 3049, Portugal; Jaime Ventura Forte, Jardim Botânico da Universidade de Coimbra, Arcos do Jardim, Coimbra, Coimbra 3049, Portugal. Donated by Jardim Botânico da Universidade de Coimbra, Arcos do Jardim, Coimbra, Coimbra 3000-393, Portugal. Received 06/02/1998.

**PI 633647. *Calendula suffruticosa* subsp. *algarbiensis* (Boiss.) Nyman**

Wild. Index Seminum 335; Ames 24676. Collected 06/17/1997 in Coimbra, Portugal. Latitude 40 deg. 9' N. Longitude 8 deg. 52' W. Buarcos (Figueira da Foz), Serra da Boa Viagem.

The following were donated by W.R. Schroeder, PFRA Shelterbelt Centre, Indian Head, Saskatchewan S0G2K0, Canada. Received 05/18/1992.

**PI 633648. *Caragana arborescens* Lam.**

Wild. E5236; Ames 19114. Collected 10/1985 in Irkutsk, Russian Federation. Maloye Goloustonaye.

Unknown source. Received 11/1985.

**PI 633649. *Cornus walteri* Wangerin**

Wild. KSW 3653; NA 56608; Ames 13700. Collected 10/03/1985 in Cholla Puk, Korea, South. Latitude 35 deg. 30' N. Longitude 126 deg. 34' E.

Elevation 40 m. Southeast side of village, Unho-ri, Chinso Myon, Puan Gun. Several trees in grove at edge of woods above rice field, rich moist soil, northeast-facing slope. Single-trunked decid. tree ca 12 m tall, dbh 15 cm; lvs. dull medium green above, lighter beneath: infruct. rachis pink to rosy pink, frt. dull green, turning blue and falling, round, 5 mm diam.

The following were collected by Stephen Pitt, Palo Alto County Conservation Board, 3259 355th Avenue, Ruthven, Iowa 51358-8521, United States. Donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 10/01/1997.

**PI 633650. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 5; Ames 23929. Collected 09/26/1997 in Iowa, United States. Latitude 43 deg. 13' N. Longitude 94 deg. 45' W. Elevation 390 m. Near Graettinger, Palo Alto County. Please contact curator for specific site location. Small hill prairie covering ~3 acres. Well drained, likely Storden loam soil. Plants were occasional.

The following were collected by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 10/01/1997.

**PI 633651. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 7; Ames 23931. Collected 09/29/1997 in Iowa, United States. Latitude 42 deg. 56' N. Longitude 95 deg. 28' W. Elevation 410 m. Near Sutherland, O'Brien County. Please contact curator for specific site location. Praire. Mostly open exposure with a variable (20-40%), but usually steep slope, and an aspect ranging from north to northwest. Poor, light colored, well drained, stony Storden loam soil. Plants were frequent and 40-60 cm tall with some branching.

The following were collected by USDA, NRCS, Bismarck Plant Materials Center, 3308 University Drive, Bismarck, North Dakota 58504-7564, United States. Received 06/23/1998.

**PI 633652. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076688; Ames 24991. Collected 06/1998 in North Dakota, United States. Latitude 47 deg. 30' 30'' N. Longitude 102 deg. 26' W. Ft. Berthold Indian Reservation, McKenzie County. Section 22, T-150 N, R-92 W.

**PI 633653. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076691; Ames 24992. Collected 06/1998 in North Dakota, United States. Latitude 46 deg. 18' 30'' N. Longitude 100 deg. 39' 30'' W. Standing Rock Indian Reservation, Sioux County. Section 30, T-133 N, R-79 W.

**PI 633654. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076751; Ames 24993. Collected 06/1998 in North Dakota, United States. Latitude 46 deg. 29' 30'' N. Longitude 103 deg. 0' W. Slope County. Section 21, T-135 N, R-98 W.

**PI 633655. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076752; Ames 24994. Collected 06/1998 in North Dakota, United States. Theodore Roosevelt National Park (South Unit), Billings County.

**PI 633656. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076756; Ames 24998. Collected 06/1998 in North Dakota, United States. Latitude 46 deg. 39' N. Longitude 100 deg. 53' 30'' W. Morton County Wildlife Management Area, Morton County. Section 27, T-137 N, R-81 W.

**PI 633657. *Echinacea angustifolia* DC. var. *angustifolia***

Wild. 9076758; Ames 25000. Collected 06/1998 in North Dakota, United States. Sioux County. T-132 N, R-83 W.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 09/05/1997.

**PI 633658. *Echinacea pallida* (Nutt.) Nutt.**

Wild. 035; Ames 23920. Collected 08/17/1997 in Arkansas, United States. Latitude 36 deg. 14' N. Longitude 93 deg. 8' W. Elevation 430 m. Near Harrison, Boone County. Please contact curator for specific site location. Osage tallgrass prairie remnant. Full exposure with a gentle slope and an eastern aspect. Cherty, well drained soil. Plants were up to ~2 feet tall, relatively abundant, and seldom branched with light pink flowers.

The following were collected by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States; Lynn Reese, Webster County Conservation Board, Integrated Roadside Vegetation Management, 1415 Nelson Avenue, Fort Dodge, Iowa 50501-8525, United States. Donated by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 10/01/1997.

**PI 633659. *Echinacea pallida* (Nutt.) Nutt.**

Wild. 1; Ames 23925. Collected 09/28/1997 in Iowa, United States. Latitude 42 deg. 29' N. Longitude 94 deg. 14' W. Elevation 335 m. Near Fort Dodge, Webster County. Please contact curator for specific site location. Goat prairie. Mostly sunny exposure with a fairly steep (~30%) slope and a western aspect. Well drained, fairly stony, Storden loam soil. Plants were frequent and ~90 cm tall.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

**PI 633660. *Echinacea pallida* (Nutt.) Nutt.**

Wild. 042; Snakeroot; Ames 23948. Collected 08/19/1997 in Missouri, United States. Latitude 36 deg. 59' N. Longitude 93 deg. 44' W. Elevation 520 m. Near Aurora. Please contact curator for specific site location. Roadside. Full exposure, gentle slope with a southern aspect. Sandy clay, stony soil with good drainage. Plants were up to ~3 feet tall, abundant, and sometimes branched near base with pink flowers.

~90% of the plants at this site were harvested for the roots. Above ground parts were left behind.

The following were collected by I.M. Cull, Horticultural and Special Crops Lab., Northern Regional Research Center, Peoria, Illinois, United States. Donated by USDA, ARS-Midwest Area, National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, Illinois 61604, United States. Received 01/29/1998.

**PI 633661. *Echinacea pallida* (Nutt.) Nutt.**

Wild. NU 62755; Ames 24304. Collected 01/1998 in Illinois, United States. Latitude 40 deg. 44' 42" N. Longitude 89 deg. 36' 33" W. Peoria.

The following were collected by Toronto Zoo, 361A Old Finch Avenue, Scarborough, Ontario M1B 5K7, Canada. Received 05/14/1999.

**PI 633662. *Echinacea pallida* (Nutt.) Nutt.**

Wild. Index Seminum 11; Ames 25280. Collected 1998 in Ontario, Canada. Latitude 42 deg. 39' N. Longitude 81 deg. 32' W. Elevation 220 m. Dunwich Township, Elgin County. Prairie.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts 01003-2910, United States. Received 10/01/1997.

**PI 633663. *Echinacea paradoxa* (Norton) Britton var. *paradoxa***

Wild. 041; Ames 23947. Collected 08/19/1997 in Missouri, United States. Latitude 36 deg. 40' N. Longitude 93 deg. 18' W. Elevation 480 m. Near Branson, Taney County. Please contact curator for specific site location. Rocky slope. Full exposure, ~15 degrees of slope with an eastern aspect. Dolomite, well drained, and very rocky soil. Plants were up to 2.5 feet tall, occasional with some lodging and yellow flowers.

**PI 633664. *Echinacea paradoxa* (Norton) Britton var. *paradoxa***

Wild. 077; Ames 25099. Collected 10/06/1998 in Arkansas, United States. Latitude 36 deg. 0' N. Longitude 92 deg. 0' W. Elevation 300 m. Mountain Home, Baxter County. Oak savannah-type with succession. Full exposure on level ground with an eastern aspect. Calcareous, rocky soil with limestone outcroppings. (Very similar to Sylamore Ranger District.). Plants were up to ~2 feet tall, in occasional abundance, and unbranched with yellow flowers.

**PI 633665. *Echinacea purpurea* (L.) Moench**

Wild. 074; Ames 25100. Collected 10/05/1998 in Arkansas, United States. Latitude 34 deg. 0' N. Longitude 93 deg. 0' W. Elevation 170 m. Terre Noire, Arkadelphia, Clark County. Blackland prairie and savannah under restoration. Partial to full sun on a gentle slope. Sandy, well drained soil with low stoniness. Plants were 2-3 feet tall (shorter than other wild *E. purpurea* pop's), relatively abundant where occurred (but did not occur throughout the site), with frequent branching at upper stem rather than from base and purple flowers with bright orange palea.

**PI 633666. *Echinacea purpurea* (L.) Moench**  
Wild. 075; Ames 25101. Collected 10/05/1998 in Arkansas, United States. Latitude 34 deg. 0' N. Longitude 93 deg. 0' W. Elevation 170 m. Terre Noire, Arkadelphia, Clark County. Blackland prairie and savannah under restoration. Partial to full sun on a gentle slope. Sandy, well drained soil with low stoniness. Plants were relatively abundant where occurred (but did not occur throughout the site) with purple flowers with bright orange palea.

**PI 633667. *Echinacea purpurea* (L.) Moench**  
Wild. 076; Ames 25102. Collected 10/06/1998 in Arkansas, United States. Latitude 35 deg. 0' N. Longitude 92 deg. 0' W. Elevation 310 m. Buffalo National River, Silver Hill, Searcy County. Edge of woods. Partial to nearly full exposure on level ground with a southern aspect. Plants were 2-2.5 feet tall, in frequent abundance, with branching and purple flowers with bright orange palea. Very large inflorescence and large cones.

**PI 633668. *Echinacea purpurea* (L.) Moench**  
Wild. 078; Ames 25103. Collected 10/07/1998 in Louisiana, United States. Latitude 31 deg. 0' N. Longitude 93 deg. 0' W. Elevation 100 m. Fort Polk Military Reservation, Leesville, Vernon Parish. Calcareous glade. Partial exposure on level ground. Calcareous soil. Plants were 2-2.5 feet tall, in occasional abundance, with multiple branching at top and purple flowers which were still in bloom at collection time.

**PI 633669. *Echinacea purpurea* (L.) Moench**  
Wild. 079; 101; Ames 25104. Collected 10/07/1998 in Louisiana, United States. Latitude 32 deg. 0' N. Longitude 92 deg. 0' W. Elevation 70 m. Near Price Landing Hunting Club, Columbia Gorges, Columbia, Caldwell Parish. Prairie edge. Partial exposure on a gentle slope. Calcareous, rocky soil. Plants were 2-2.5 feet tall, in frequent abundance, with multiple branching near top and purple flowers with orange palea which were still in bloom at collection time.

**PI 633670. *Echinacea purpurea* (L.) Moench**  
Wild. 080; 100; Ames 25105. Collected 10/08/1998 in Mississippi, United States. Latitude 32 deg. 0' N. Longitude 89 deg. 0' W. Elevation 200 m. Harrell Prairie, Bienville National Forest, Forest, Scott County. Blackland prairie. Full exposure on level to gently sloping ground. Plants were 2-4 feet tall, relatively abundant, with multiple branching and purple flowers with bright orange palea.

The following were collected by Allison W. Cusick, Ohio Department of Natural Resources, Division of Natural Areas & Preserves, 1889 Fountain Square Court, Columbus, Ohio 43224, United States. Received 11/27/2000.

**PI 633671. *Echinacea purpurea* (L.) Moench**  
Wild. Ames 26139. Collected 10/03/2000 in Ohio, United States. Latitude 40 deg. 6' N. Longitude 83 deg. 19' W. Smith Cemetery State Nature Preserve, southwest of Plain City, Darby Township, Madison County. Prairie remnant.

The following were collected by Kathy McKeown, University of Massachusetts, Department of Plant & Soil Sciences, French Hall, Amherst, Massachusetts

01003-2910, United States. Received 08/22/1997.

**PI 633672. *Echinacea sanguinea* Nutt.**

Wild. 010; Pale Purple Coneflower; Spit-a-River; Ames 23878. Collected 08/08/1997 in Louisiana, United States. Latitude 32 deg. 17' N. Longitude 93 deg. 3' W. Elevation 180 m. Near Lucky, Bienville Parish. Please contact curator for specific site location. Roadside at edge of pine woods. Full exposure with ~10 degrees of slope and a northern aspect. Sandy soil with low stoniness and fair drainage. Plants were up to ~2.5 feet tall in relative abundance with rose flowers and some branching.

**PI 633673. *Echinacea simulata* McGregor**

Wild. 056; Ames 23962. Collected 08/28/1997 in Georgia, United States. Latitude 34 deg. 8' N. Longitude 85 deg. 24' W. Elevation 340 m. Near Cave Springs, Floyd County. Please contact curator for specific site location. Glade area surrounded by pine. Full exposure, ~15 degrees of slope with a southwestern aspect. Thin, rocky, and well drained soil over slate with high stoniness. Plants were up to ~2 feet tall, abundant, and unbranched with magenta flowers. Population was vigorous.

The following were collected by Roger L. Thelen, Michigan State University, W. J. Botanical Garden, 412 Olds Hall, East Lansing, Michigan 48824-1047, United States. Received 04/22/1994.

**PI 633674. *Euonymus obovatus* Nutt.**

Wild. Ames 21988. Collected 1993 in Michigan, United States. Latitude 42 deg. 42' N. Longitude 84 deg. 28' W. Ingham County, Southworth Woods. Mesic Forest.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Zierpflanzensammlung, Erfurt, Thuringia, Germany; VEG Saatzucht Zierpflanzen, Erfurt, Thuringia, Germany. Received 02/05/1997.

**PI 633675. *Lavatera thuringiaca* L.**

Cultivated. LAVA 6/93; Ames 23644.

The following were collected by Hans Kohler, Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universität Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

**PI 633676. *Malva sylvestris* L.**

Wild. 550; Ames 15727. Collected in Saxony-Anhalt, Germany. Mertendorf.

The following were donated by Donald Willeke, Minneapolis, Minnesota, United States. Received 01/16/1989.

**PI 633677. *Phellodendron amurense* Rupr.**

Cultivated. Ames 10095. Collected in Minnesota, United States. Street Tree in Minneapolis. Pedigree - Seeds harvested from a single, select

tree.

The following were donated by USDA, ARS, U.S. National Arboretum, Woody Landscape Plant Germplasm Repository, Glenn Dale, Maryland 20769, United States. Received 01/25/1985.

**PI 633678. *Rhodotypos scandens* (Thunb.) Makino**

Wild. KNW 328; NA 55134; Ames 3492. Collected 1984 in Kyonggi, Korea, South. Satan Dong, Twaeji Kogae, Taechong-myon Taechong Island, Ongjin-gun. Cut-over hillside.

The following were collected by K.G. Tkaczenko; V.M. Reinwald. Donated by V.L. Komarov Botanical Institute, Russian Academy of Sciences, 2, Prof. Popov Street, St. Petersburg, Leningrad 197376, Russian Federation. Received 01/16/1998.

**PI 633679. *Sorbaria sorbifolia* (L.) A. Braun**

Wild. 2752; Ames 24142. Collected 1996 in Primorye, Russian Federation. Latitude 43 deg. 10' N. Longitude 132 deg. 48' E. Mountain Chualazaa, near station Anisimovka.

The following were collected by Charles Tubering, The Holden Arboretum, 9500 Sperry Road, Kirtland, Ohio 44094-5172, United States; Paul Meyer, The University of Pennsylvania, Morris Arboretum, 9414 Meadowlark Avenue, Philadelphia, Pennsylvania 19118, United States; Jeff Lynch, Longwood Gardens, P.O. Box 501, Kennett Square, Pennsylvania 19348, United States; Wang Xian Li, Shenyang Institute of Applied Ecology, 72 Whenhua Road, Shenyang, China; Cao Wei, Shenyang Institute of Applied Ecology, 72 Whenhua Road, Shenyang, China; Zhao Shuqing, Shenyang Institute of Applied Ecology, 72 Whenhua Road, Shenyang, China; Sheng Ning, Nanjing Botanical Garden, Box 1435, Nanjing, Jiangsu 210014, China; Zhong Linsheng, Shenyang Institute of Applied Ecology, 72 Whenhua Road, Shenyang, China; Kris Bachtell, The Morton Arboretum, 4100 Illinois Route 53, Lisle, Illinois 60532-1293, United States. Donated by USDA, ARS, U.S. National Arboretum, Woody Landscape Plant Germplasm Repository, Glenn Dale, Maryland 20769, United States. Received 12/30/1997.

**PI 633680. *Spiraea media* Schmidt**

Wild. CBS 043; NA 68802; Ames 24106. Collected 09/06/1997 in Jilin, China. Latitude 41 deg. 46' 43" N. Longitude 128 deg. 1' 39" E. Elevation 1360 m. Changbai County. Open meadow. Slope of 30% with a southwestern aspect. 1.5 m tall, with brown capsule fruit. Wood strong, used for canes.

The following were collected by Giovanni Figliuolo, University of Basilicata, Via N. Sauro, 85, Potenza, Basilicata 85100, Italy. Received 04/10/1998.

**PI 633681. *Tanacetum cinerariifolium* (Trevir.) Sch. Bip.**

Cultivated. 1; Ames 26157; W6 20647. Collected 10/1996 in Basilicata, Italy. Latitude 40 deg. 38' N. Longitude 15 deg. 38' E. Elevation 750 m. Picerno, Potenza. Catalog field, Eu-Mediterranean climate. Use: insecticide.

The following were collected by Edward G. Voss, University of Michigan Herbarium, North University Building, Ann Arbor, Michigan 48109-1057, United States. Received 10/22/1997.

**PI 633682. *Tanacetum huronense* Nutt.**

Wild. 11; Ames 24029. Collected 10/11/1997 in Michigan, United States. Latitude 46 deg. 40' 8'' N. Longitude 86 deg. 0' 48'' W. Grand Sable Dunes, Lake Superior, near Sable Falls, about 1.5 miles west of Grand Marais, Alger County.

**PI 633683. *Tanacetum huronense* Nutt.**

Wild. 12; Ames 24030. Collected 10/11/1997 in Michigan, United States. Latitude 46 deg. 39' 15'' N. Longitude 86 deg. 3' 45'' W. Grand Sable Dunes, Lake Superior, near "Log Slide", about 6 miles west of Grand Marais, Alger County.

The following were collected by Armando De Jesus Machado, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal; Jose Loureiro Martins, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal. Donated by Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal. Received 06/30/1999.

**PI 633684. *Tanacetum parthenium* (L.) Sch. Bip.**

Wild. Index Seminum 44; Ames 25389. Collected 08/02/1998 in Viseu, Portugal. Latitude 40 deg. 58' N. Longitude 7 deg. 35' 30'' W. Between Rua and Moimenta da Beira.

The following were developed by University of Saskatchewan, Crop Development Centre, 51 Campus Drive, Saskatoon, Saskatchewan S7N 5A8, Canada. Donated by Al Slinkard, University of Saskatchewan, Crop Development Center, 51 Campus Drive, Saskatoon, Saskatchewan S7N 5A8, Canada. Received 06/17/2002.

**PI 633685. *Coriandrum sativum* L.**

Breeding. CDC Major; Ames 26849. Pedigree - Selection from ND-1. Released 1999. Seed lots of coriander were obtained from various parts of the world and evaluated for seed yield and essential oil concentration at various sites in Saskatchewan. The highest yielding lines quickly sorted themselves into two groups, a small-fruited (two hemisphere-shaped seeds per fruit) type (1000-fruit weight of 7.0 to 9.0 g) and a medium large-fruited type (1000-fruit weight of 9.5 to 12.5 g). Repeated test of lines within these two fruit size groups resulted in the identification of the best line within each group. Fifty plants were selected from each of these two lines, and increased in miniplots isolated from the other set of miniplots. Those miniplots that appeared highly variable in height and maturity were discarded. Fruits from each of the remaining miniplots were retested for fruit weight and percentage essential oil. The most extreme miniplots in fruit weight and percentage essential oil within each of the two lines were discarded and fruits from the remaining.

**PI 633686. *Coriandrum sativum* L.**

Breeding. CDC Minor; Ames 26850. Pedigree - Selection from PGR 5741. Released 1999. Seed lots of coriander were obtained from various parts

of the world and evaluated for seed yield and essential oil concentration at various sites in Saskatchewan. The highest yielding lines quickly sorted themselves into two groups, a small-fruited (two hemisphere-shaped seeds per fruit) type (1000-fruit weight of 7.0 to 9.0 g) and a medium large-fruited type (1000-fruit weight of 9.5 to 12.5 g). Repeated test of lines within these two fruit size groups resulted in the identification of the best line within each group. Fifty plants were selected from each of these two lines, and increased in miniplots isolated from the other set of miniplots. Those miniplots that appeared highly variable in height and maturity were discarded. Fruits from each of the remaining miniplots were retested for fruit weight and percentage essential oil. The most extreme miniplots in fruit weight and percentage essential oil within each of the two lines were discarded and fruits from the remaining.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/19/2002.

**PI 633687. *Coriandrum sativum* L.**

Wild. KAZ-209; Ames 26903. Collected 2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 50' 36'' N. Longitude 59 deg. 1' 50'' E. Elevation 337 m.

The following were developed by H.G. Marshall, Pennsylvania State Univ., Dept. of Agronomy, Tyson Bldg., University Park, Pennsylvania 16802, United States. Received 01/14/1982.

**PI 633688. *Fagopyrum esculentum* Moench**

Breeding. Pennline 25; Cifa 53; PAI25. PL-2. Pedigree - LaHarpe / PAI4, made in 1965. Homomorphic for an atypical flower form (anthers and stigmas essentially on the same level). Average stylar lengths about 0.96 mm compared to an average of about 2.2 mm for the "pin" type flowers in heteromorphic strains. Self-fertility results from the reduced stylar length. Uniform in morphological traits and plants substantially shorter than those of either parent or of open-pollinated strains. Flower color white. Seeds medium size, uniform gray in color. Released for plant breeding purposes only. May serve as parent in research programs to develop systems for the utilization of hybrid buckwheat. Although self-fertile, over 75% progeny were hybrids when grown under open-pollination in alternate rows with a heteromorphic strain in 1973. This adaptability for hybrid production is a major desirable attribute. In contrast, self-fertilization is so effective in the earlier release Pennline 10, that few hybrid progeny result from cross pollination.

The following were donated by Agriculture Canada, Plant Science Research Institute, Central Experiment Farm, Ottawa, Ontario, Canada. Received 1972.

**PI 633689. *Fagopyrum esculentum* Moench**

Uncertain. NSL 81124; MC 056. Collected in Former Soviet Union.

**PI 633690. *Fagopyrum esculentum* Moench**

Uncertain. NSL 81125; MC 057. Collected in India.

The following were developed by Cebeco Zaden B.V., Rotterdam, South Holland, Netherlands. Received 06/27/2003.

- PI 633691 PVPO. *Linum usitatissimum* L.  
Cultivar. "TAURUS". PVP 200300191.
- PI 633692 PVPO. *Hordeum vulgare* L.  
Cultivar. "TOLAR". PVP 200300197.
- PI 633693 PVPO. *Pisum sativum* L.  
Cultivar. "STRATUS". PVP 200300198.
- PI 633694 PVPO. *Pisum sativum* L.  
Cultivar. "BLUEBIRD". PVP 200300199.
- PI 633695 PVPO. *Pisum sativum* L.  
Cultivar. "CEBECO ECLIPSE". PVP 200300200.
- PI 633696 PVPO. *Pisum sativum* L.  
Cultivar. "TOPEKA". PVP 200300201.

The following were developed by DLF-Trifolium A/S, Denmark. Received 06/27/2003.

- PI 633697 PVPO. *Pisum sativum* L.  
Cultivar. "NITOUCHE". PVP 200300209.

The following were developed by Danisco Seed, Denmark. Received 06/27/2003.

- PI 633698 PVPO. *Pisum sativum* L.  
Cultivar. "DS-ADMIRAL". PVP 200300244.

The following were developed by Svalof Weibull AB, Svalow, Malmohus, Sweden. Received 06/27/2003.

- PI 633699 PVPO. *Pisum sativum* L.  
Cultivar. "SW GREENBACK". PVP 200300265.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 06/27/2003.

- PI 633700 PVPO. *Phaseolus vulgaris* L.  
Cultivar. "PINK PANTHER". PVP 200300266.
- PI 633701 PVPO. *Pisum sativum* L.  
Cultivar. "SWEET ANN". PVP 200300267.

The following were developed by Rijk Zwaan Zaadteelt en Zaadhandel B.V., Meo Voto Beheer BV, De Lier, South Holland, Netherlands. Received 06/27/2003.

**PI 633702 PVPO. *Lactuca sativa* L.**  
Cultivar. "GUADELOUPE". PVP 200300269.

**PI 633703 PVPO. *Lactuca sativa* L.**  
Cultivar. "LAGUNAS". PVP 200300270.

**PI 633704 PVPO. *Lactuca sativa* L.**  
Cultivar. "OPTIGON". PVP 200300271.

**PI 633705. *Lactuca sativa* L.**  
Cultivar. "SATURNAS". PVP 200300272.

**PI 633706 PVPO. *Lactuca sativa* L.**  
Cultivar. "VIRTUOSE". PVP 200300273.

The following were developed by Stoneville Pedigreed Seed Company, Stoneville, Mississippi, United States. Received 06/27/2003.

**PI 633707 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "ST 4563B2". PVP 200300275.

The following were developed by Texas Tech University, Texas, United States. Received 06/27/2003.

**PI 633708 PVPO. *Melampodium leucanthum* Torr. & A. Gray**  
Cultivar. "PLAINS BLACKFOOT DAISY". PVP 200300276.

**PI 633709 PVPO. *Glandularia bipinnatifida* (Nutt.) Nutt.**  
Cultivar. "VERBENA VIBRANT PURPLE". PVP 200300277.

The following were developed by Stoneville Pedigreed Seed Company, Stoneville, Mississippi, United States. Received 06/27/2003.

**PI 633710 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "ST 5222B2". PVP 200300278.

**PI 633711 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "ST 5599BR". PVP 200300279.

**PI 633712 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "ST 5303R". PVP 200300280.

The following were donated by P. Hu, Beijing Agricultural University, Department of Animal Science, Beijing, Beijing, China. Received 05/15/1991.

**PI 633713. *Leymus chinensis* (Trin.) Tzvelev**  
Cultivated. W6 7335. Collected in Hebei, China. Hebei Province.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received

01/30/1992.

**PI 633714. *Hordelymus europaeus* (L.) Harz**

Wild. D-3734; W6 10618. Collected 10/13/1988 in Denmark. Beech Woods.  
Seed Increased: MA-7-65--75 (1991).

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 05/1995.

**PI 633715. *Leymus chinensis* (Trin.) Tzvelev**

Wild. E94068; W6 18026. Collected 09/1994 in Mongolia. Latitude 45 deg. 47' 17'' N. Longitude 111 deg. 24' 17'' E. Elevation 976 m. Northern edge of desert steppe. Desert steppe. Soils light brown, sandy loam texture.

**PI 633716. *Stipa capillata* L.**

Wild. E94185; W6 18114. Collected 09/1994 in Mongolia. Latitude 47 deg. 37' 11'' N. Longitude 116 deg. 16' 26'' E. Elevation 427 m. East of site E94-034 but in similar country. Grass steppe. Soils the same. Aspect north, slope 1%.

The following were collected by Carlos Baetti; G. Oliva-Dubcovsky. Donated by Leopoldo Montes, E.E.A. - I.N.T.A., Santa Cruz, CC. 332 - (9400) Rio Gallegos, Santa Cruz, Santa Cruz, Argentina. Received 03/1995.

**PI 633717. *Festuca gracillima* Hook. f.**

Wild. RGA 055; W6 19128. Collected 03/15/1990 in Tierra del Fuego, Argentina. Latitude 54 deg. 52' S. Longitude 67 deg. 25' W. Elevation 10 m. 90 km from Ushuara in an easterly direction. Camping Lashifasaj Ruta "J". Found in openings in a forested plain. 15% slope, north aspect, free drainage, sandy loam soil, pH 4.9. Soil: Nuestra #3172 CAP Res 6.455 CO 6.00% N of 0.438, P 5 ppm. Population present with 5-25% cover. Dominant species: *Nothofagus antartica*. Associated species: *Berberis boxifolia*, *Empetrum rubrum*, *Elymus antarticus*, *Agrostis* sp. Large plants that appear to be *F. pallescens* by their wide, bluish leaves.

The following were collected by Jerrold I. Davis, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States. Received 02/10/1997.

**PI 633718. *Alopecurus myosuroides* Huds.**

Wild. 4036; W6 19183. Collected 07/08/1993 in Kocaeli, Turkey. Latitude 40 deg. 45' N. Longitude 29 deg. 59' E. Elevation 0 m. South of Izmit on road to Bursa, easternmost tip of Sea of Marmara, Izmit Korfezi, near shore. Low coastal, saline marshes, with *Scitpus*, *Typha*, *Limonium*, *Juncus sparteum*, *Atriplex*.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural

Research Center, Post Office Box E, Union, Oregon 97833, United States;  
Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah  
State University, Logan, Utah 84322-6300, United States. Received 03/06/1997.

**PI 633719. *Stipa sibirica* (L.) Lam.**

Wild. 96S-60; W6 19595. Collected 08/1996 in Mongolia. Latitude 45 deg. 31' 39'' N. Longitude 94 deg. 37' 57'' E. Elevation 2115 m. Gobi-Altai Aimag, Bugat Sum, on and near Lamin ekh Mountain about 100 km from sum center. 5% to 30% south slope. Lower elevation of a mountain range in the desert steppe. Mountain slopes are south facing and comprised of granodiorite materials including quartzite and quartz. DOMINANT VEG: *Allium altaicum* + *Arenaria capillaris*/*Stipa glareosa*.

**PI 633720. *Stipa glareosa* P. A. Smirn.**

Wild. 96S-66; W6 19598. Collected 08/1996 in Mongolia. Latitude 45 deg. 31' 39'' N. Longitude 94 deg. 37' 57'' E. Elevation 2115 m. Gobi-Altai Aimag, Bugat Sum, on and near Lamin ekh Mountain about 100 km from sum center. 5% to 30% south slope. Lower elevation of a mountain range in the desert steppe. Mountain slopes are south facing and comprised of granodiorite materials including quartzite and quartz. DOMINANT VEG: *Allium altaicum* + *Arenaria capillaris*/*Stipa glareosa*.

**PI 633721. *Stipa sibirica* (L.) Lam.**

Wild. 96S-173; W6 19672. Collected 09/1996 in Mongolia. Latitude 49 deg. 23' 7'' N. Longitude 102 deg. 47' 43'' E. Elevation 1090 m. Bulgan Aimag, Kutag-Ondor Sum, located 6 km east of sum center. 5% north slope. Ecotone between Larch forest and steppe grassland. Forb species dominate over grass species, and the site productivity is high. DOMINANT VEG: *Larix*\ *Potentilla tanacetifolia* + *Sanguisorba officinalis*\ *Elymus dahuricus*, *Allium* spp., *Thalictrum simplex*, *Agropyron cristatum*, *Stipa sibirica*.

**PI 633722. *Stipa sibirica* (L.) Lam.**

Wild. 96N-307; W6 19785. Collected 09/1996 in Mongolia. Latitude 50 deg. 10' 32'' N. Longitude 91 deg. 31' 57'' E. Elevation 1601 m. Uvs Aimag, 28 km from Ulaangom on the north side of the road from Ulaangom to Uureg Nuur. 50% to 80% slope. Rocky draw with steep sides running south with major rock projections. Soils are rocky. DOMINANT VEG: *Caragana bungeii*, *Agropyron cristatum*, *Koeleria cristatum*, *Festuca lenensis*, *Artemisia frigida*, *Potentilla acaulis*, *Kochia prostrata*, *Carex pediformis*, *Thymus daharius* ECOLOGICAL ZONE: Mountain Steppe.

**PI 633723. *Stipa sibirica* (L.) Lam.**

Wild. 96N-383; W6 19843. Collected 09/1996 in Mongolia. Latitude 47 deg. 25' 10'' N. Longitude 103 deg. 38' 46'' E. Elevation 1355 m. Bulgan Aimag, located in mountain canyon several km north of the paved Arrayheer-Ulaanbaatar highway. 5% east slope. Hugin Kahn mountains are large boulders and steep with shrubs. Valley floor is flat terrain and sandy/silt soils with shrub and grass. DOMINANT VEG: *Festuca lenensis*, *Agropyron cristatum*, *Stipa capillata*, *Allium anisipodium*, *Artemisia frigida*, *Scabiosa fischer*, *Cleistogenes squarrosa*, *Caragana stenophylla*, *Carex pediformis* ECOLOGICAL ZONE: Mountain steppe.

The following were developed by Paul R. Beuselinck, USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States. Received 06/30/2003.

**PI 633724. Lotus corniculatus L.**

Breeding. ARS-2424. GP-11. Pedigree - The non-rhizomatous L. corniculatus X L. uliginosus hybrid G4712 was mated to five wild germplasm accessions (PI's 631539-542 and G31217) from Morocco. Broadleafed birdsfoot trefoil that is a rhizomatous L. corniculatus germplasm that includes a L. uliginosus parentage. Such germplasm is important because it expands the germplasm resource that will allow plant breeders to develop rhizomatous cvs. with diverse attributes for different environments. Plants are variable in morphology. Semierect, with medium to large sized leaves and medium to coarse sized stems. Individual plants can be aggressive rhizome producers with large crowns developing from prolific rhizome production. Flower color varies from yellow to orange. Contains a large number of early-flowering plants. Condensed tannin concentration in foliage is similar to that found in L. corniculatus. It is cross-compatible with other L. corniculatus.

The following were developed by Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States. Received 06/18/2003.

**PI 633725. Oryza sativa L.**

Cultivar. Pureline. "LOTUS"; IAC 500; RU8903046. Pedigree - Della X2 (RU8502186)/Lemont//Lemont. Aromatic, long grain cv. that cooks dry and flaky. Amylose content 23% and alkali spreading value 3.5, the same as Lemont and Della. Adapted for production in both the southern U.S. and the southern irrigated region of Brazil (where it is designated IAC 500). Flowers in about 84 days in the U.S. and 82 days in Brazil. Semidwarf plant type and height 96 cm in the U.S. and 90 cm in Brazil. Yield potential 7229 kg/ha in the U.S. and 5718 kg/ha in Brazil which is better than Dellmont in both locations. Whole grain milling yield (58%) is similar to Dellmont in the U.S. and 62% in Brazil, which is better than the local check IAC 103 (56%). Appears to be moderately resistant to blast (*Pyricularia grisea*) and very susceptible to sheath blight (*Rhizoctonia solani*) like its parent, Lemont.

**PI 633726. Oryza sativa L.**

Cultivar. Pureline. "NECHES"; RU9503072; TX 5072. Pedigree - Glutinous Lebonnet / Bellemont. Semidwarf, long grain cv. that averages 91 cm in height. Considered an early maturing variety that heads in about 85 days. Cooking properties typical of waxy rices, and has 0% amylose and a low gelatinization temperature as indicated by alkali spreading value of 6 in 1.7% potassium hydroxide solution. The amylographic pasting properties are similar to Calmochi 101, another waxy rice that is grown in California. All plant parts are glabrous. Adapted for production in the southern U.S. and produces about 7500 kg/ha and 61:70% milling yield (head rice:total milled). Evaluation for resistance to the blast pathogen (*Pyricularia grisea*) indicates the same reaction as Lebonnet and is considered moderately resistant. Inoculated field trials with the pathogen that causes sheath blight disease (*Rhizoctonia solani*) indicates very susceptible.

The following were developed by T.L. Archer, Texas Agric. Exp. Sta., Texas A&M University, Rt. 3, Box 219, Lubbock, Texas 79401, United States; Gary Odvody, Texas A&M University, Agriculture Research & Extension Center, 10345

Agnes Street, Corpus Christi, Texas 78406-9704, United States; Wenwei Xu, Texas Agricultural Experiment Station, The Texas A&M University System, Agricultural Research and Extension Center, Lubbock, Texas 79401-9757, United States; E.D. Bynum, Texas A&M University System, Agricultural Research & Extension Center, Route 3, Box 219, Lubbock, Texas 79403, United States. Received 06/13/2003.

**PI 633727. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx202. GP-375. Pedigree - Inbred line developed from a four-way cross with 50% tropical germplasm (NB611 x Valle 411) x (NB611 x Venezuela 733). Strong early vigor, upright leaves, semi-dent white kernels, and red cobs. Ears usually have 10 to 12 rows of kernels. Flowers 10 days later than B73 and requires 1063 heat units from planting to flower in Lubbock, Texas. Average plant height and above-average ear heights. Long, dark-green leaf blades. Kernels relatively small. Certain degree of photoperiod sensitivity since this line comes from 50% tropical background. Tolerant to Banks grass mite (*Oligonychus pratensis*) and two-spotted spider mite (*Tetranychus urticae*) feeding damage. Resistant to high temperature. Over several years, high temperatures caused leaf firing and tassel blasting in many inbred lines in the summer nurseries in Lubbock, TX, but not in this line. Also has good drought tolerance. Better plant appearance rating under severe drought stress, showed better plant recovery when pre-tassel drought stress was relieved, and had better stay green rating. In replicated trials with inoculation of.

The following were developed by T.L. Archer, Texas Agric. Exp. Sta., Texas A&M University, Rt. 3, Box 219, Lubbock, Texas 79401, United States; Wenwei Xu, Texas Agricultural Experiment Station, The Texas A&M University System, Agricultural Research and Extension Center, Lubbock, Texas 79401-9757, United States; E.D. Bynum, Texas A&M University System, Agricultural Research & Extension Center, Route 3, Box 219, Lubbock, Texas 79403, United States. Received 06/13/2003.

**PI 633728. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx203. GP-376. Pedigree - Derived from a single cross, Tx802 x Tx804. Semi-upright leaves, yellow flint kernels and white cobs. Flowers about one week later than B73 and requires 1019 heat units from planting to flower. Plants tall and vigorous. Plant and ear height above most of the tested public lines. Produces long ears with 16-18 rows of kernels. The hybrids of this line have a relative maturity of 119 days. From 2000 to 2002, the hybrids produced grain yield comparable to the high-yielding commercial hybrids, and had tall and vigorous plants, large ears, and average corn ear worm resistance in College Station, Etter, Halfway, and Lubbock, TX. Can be used as a parental line to produce hybrids with high yields and biomass for the High Plains.

The following were developed by Randall Nelson, USDA, ARS, National Soybean Research Laboratory, 1101 West Peabody Drive, Urbana, Illinois 61801, United States; Gina L. Brown-Guedira, USDA, ARS, Kansas State University, Agronomy Department, Manhattan, Kansas 66506-5502, United States; Marilyn Warburton, Applied Biotechnology Center, Apdo. Postal 6-641, Mexico City, Federal District 06600, Mexico. Received 07/10/2003.

**PI 633729. *Glycine max* (L.) Merr.**

Breeding. Pureline. LG92-4208; SY 313001. GP-302. Pedigree - F6 selection from LG84 1269 x 'Chamberlain'. LG84-1269 is an F5 selection from PI 227333 x PI 91730-1. Indeterminate stem termination and is classified as late group III maturity. Flowers white, tawny pubescence, brown pods, and yellow seed coat. Predominately black hilum color but some brown and yellow hilum colors do occur. In 1998, was tested at 9 locations in the Uniform Preliminary Test IIIA. In those tests was 2 days earlier than Macon and yielded 4% less. Had a lodging score of 3.2 on a 1 to 5 scale. Seed size was 14.6 g 100 seeds-1, protein concentration was 412 g kg-1, and oil concentration was 196 g kg-1. Challenged with race 7 of *Phytophthora sojae* and was susceptible. This is the first germplasm released for high yield and genetic diversity derived from PI 227333 and PI 91730 (suffix -1).

**PI 633730. *Glycine max* (L.) Merr.**

Breeding. Pureline. LG94-1128; SY 313002. GP-303. Pedigree - LG85-3343 x LG87-1991. This is the first soybean germplasm release for high yield that is derived solely from exotic germplasm not in the pedigrees of U.S. soybean cvs. Indeterminate stem termination and is classified as mid group II maturity. Flowers purple, gray pubescence, brown pods, yellow seed coat, and imperfect black hilum. Resistant to race 7 of *Phytophthora sojae* but has not been tested with any other races. In the Uniform Preliminary Test IIA in 1998, was 1 day later and yielded 5% less than IA2021. Lodging score of 2.5 on a 1 to 5 scale and 91 cm tall. Seed weighed 13.4 g 100 seeds-1 and had 428 g kg-1 protein and 197 g kg-1 oil. This is the first germplasm released for high yield and genetic diversity derived from PI 68600 and PI 189930.

**PI 633731. *Glycine max* (L.) Merr.**

Breeding. Pureline. LG94-1906; SY 313003. GP-304. Pedigree - PI 468377 x A3205. Indeterminate stem termination and is classified as late group II maturity. Flowers white, gray pubescence, brown pods, yellow seed coat, and buff hilum. Challenged with race 7 of *Phytophthora sojae* and was susceptible. Tested in the Uniform Preliminary Test IIA in 1998 and was 3 days later and yielded 7% less than IA2021. Lodging score of 2.0 on a 1 to 5 scale and was 94 cm tall. Seeds weighted 14.8 g 100 seeds-1 with 435 g kg-1 oil. This is the first germplasm released for high yield and genetic diveristy derived from PI 468377.

**PI 633732. *Glycine max* (L.) Merr.**

Breeding. Pureline. LG94-4667; SY 313004. GP-305. Pedigree - PI 458511 x Flyer. Indeterminate stem termination and is classified as early group IV maturity. Flowers white, tawny pubescence, tan pods, yellow seed coat, and black hilum. Resistant to race 7 of *Phytophthora sojae* but has not been tested with any other races. Tested in the Uniform Preliminary Test IVA in 1998 and was 2 days earlier and yielded 15% less than HS93-4118. Lodging score of 2.7 on a 1 to 5 scale and was 97 cm tall. Seeds weighed 14.4 g 100 seeds-1 with 428 g kg-1 protein and 197 g kg-1 oil. This is the first germplasm released for high yield and genetic diversity that is derived from PI 458511.

The following were developed by Linda Hanson, USDA-ARS, Sugarbeet Research Unit, Crops Research Lab., Fort Collins, Colorado 80526-2083, United States; Lee Panella, USDA, ARS, Sugarbeet Research Unit, Natl. Ctr. for Genetic

Resources Pres., Fort Collins, Colorado 80521-4500, United States. Received 07/03/2003.

**PI 633733. *Beta vulgaris* L. subsp. *vulgaris***

Breeding. FC710(4X); 20001022. GP-239. Pedigree - Colchicine doubled version of FC710. Tetraploid ( $2n=4x=36$ ), multigerm (MM), non-O-type, pseudo-self-fertile, and has 71% green hypocotyls. Excellent resistance to rhizoctonia root rot when tested under strong disease pressure. Good resistance to cercospora leaf spot when tested in an artificial epiphytotic. In percent sucrose, 92.2% of the standard and in sugar loss to molasses, 118.2% of the standard. Does not show tolerance to the beet curly top virus and has never been tested against black root.

The following were developed by Jack Brown, University of Idaho, Dept. of Plant, Soil and Entomological Sciences, Moscow, Idaho 83844-2339, United States. Received 06/30/2003.

**PI 633734. *Brassica napus* L. var. *napus***

Cultivar. "ATHENA". PVP 200300307; CV-22. Pedigree - Pure-line (near-homozygous) developed from a single plant selection from Capricorn / CPB.89606. Winter rapeseed with canola-quality seed oil and canola-quality seed meal. High adaptability to the Pacific Northwest Region (Idaho, Washington and Oregon). Seedlings emerge quickly after seeding and produce a good fall stand compared to other control cvs. This is particularly true when planted late in the fall or when re-cropped by seeding into straw stubble. Flowers significantly later, on average 131 days, than Ericka, which on average flowered after 128 days. Flowering date is not significantly different from Ceres or Olsen. Plant height 144 cm, is significantly taller than Ericka and not significantly different from Ceres or Olsen. Lodge resistant and was found to be significantly less likely to lodge compared to Olsen, despite tall plant heights. Plant maturity intermediate, being significantly later than either Ericka or Cascade, but not significantly different from the other control cvs. Determinate growth habit and plants dry down evenly at maturity, an.

The following were developed by Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Craig A. Abel, USDA, ARS, Southern Insect Management Research Unit, 141 Experiment Station Road, Stoneville, Mississippi 38776, United States. Received 06/30/2003.

**PI 633735. *Glycine max* (L.) Merr.**

Breeding. D95-6271. GP-301. Pedigree - Davis x PI 417061 (Kosa Mame). Selected for agronomic traits and harvested in bulk. In 1999, was evaluated along with parents for resistance to defoliation by velvetbean caterpillar. Davis had more defoliation and this line and PI 417061 were not significantly different. In 3 yrs. of replicated tests on Sharkey clay soil, the seed yields was 2637 vs. 2993 kg ha<sup>-1</sup> for Davis. PI 417061 yielded only 56% and was 20 days later in maturity. Relative maturity 6.2, determinant growth habit, white flowers, gray pubescence, tan pod walls and seeds yellow with light buff hila.

The following were developed by J. Allen Wrather, University of

Missouri-Columbia, Agricultural Research and Extension, Delta Center, P.O. Box 160, Portageville, Missouri 63873, United States; Sam C. Anand, University of Missouri, Department of Agronomy, 210 Waters Hall, Columbia, Missouri 65211, United States; David A. Sleper, University of Missouri, Department of Agronomy, 271-F Life Sciences Center, Columbia, Missouri 65211, United States; Prakash R. Arelli, University of Missouri-Columbia, Agronomy Department, 117 Curtis Hall, Columbia, Missouri 63873, United States; J. Grover Shannon, University of Missouri - Columbia, Missouri Ag Experiment Station, Delta Research Center, Portageville, Missouri 63873, United States; Lawrence D. Young, USDA, ARS, MSA Crop Genetics & Prod. Res. Unit, P.O. Box 345, Stoneville, Mississippi 38776-0345, United States. Received 06/13/2003.

**PI 633736. *Glycine max* (L.) Merr.**

Breeding. S97-1688. GP-300. Pedigree - S91-1381 x Hartz 5810. Mid-group V (RM 5.6) maturity. Determinate growth habit with white flowers, tawny pubescence and tan pods at maturity. Seeds shiny yellow with black hila averaging about 11.2 mg seed<sup>-1</sup>. Has value as a parent because of competitive yield potential, broad resistance to soybean cyst nematode (SCN), *Heterodera glycines* populations and high protein content. Resistant to populations of races 1,2,3,5 and 14 of SCN. Broad resistance to SCN populations traces to PI 437654 through Hartwig. Therefore, should have resistance to other populations of SCN including races 4,6,9, and 12 although it has not been tested. Seed protein and oil have averaged 445 g kg<sup>-1</sup> and 185 g kg<sup>-1</sup> versus about 420 g kg<sup>-1</sup> and 205 g kg<sup>-1</sup>, respectively for most cvs. of similar maturity.

The following were developed by F.R. Clarke, Agriculture & Agri-Food Canada, P.O. Box 1030, Swift Current, Saskatchewan S9H 3X2, Canada. Received 07/03/2003.

**PI 633737. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. G9608B1-L12J11BF02. GP-781. Pedigree - *Triticum turgidum* var. *durum* cv. Golden Ball / *Aegilops squarrosa* //2\*AC Elsa. Released 2003. Solid-stemmed hard red spring wheat line. When grown in the field in 2001, the average pith expression over all internodes was 4.8+/-0.4. Taller than AC Elsa (95 cm) and matures later than AC Elsa (103.8 days in dry environments to 106.8 days in moist environments).

**PI 633738. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. G9608B1-L12J13AU01. GP-782. Pedigree - *Triticum turgidum* var. *durum* cv. Golden Ball / *Aegilops squarrosa*//2\*AC Elsa. Released 2003. Solid-stemmed hard red spring wheat line. When grown in the field in 2001, the average pith expression over all internodes was 4.8+/-0.6. Taller than AC Elsa (95 cm).and matures later than AC Elsa (which ranges from 103.8 days in dry environments to 106.8 days in moist environments).

The following were developed by A. E. Hall, University of California, Department of Botany & Plant Sciences, Riverside, California 92521, United States; Francis K. Padi, Savanna Agricultural Research Institute, CSIR, SARI, P.O. Box 52, Tamale, Ghana; N.N. Denwar, CSIR, Savanna Agricultural Research Institute, Box 52, Tamale, Ghana; F.Z. Kaleem, CSIR, Savanna Agricultural Research Institute, Box 52, Tamale, Ghana; A.B. Salifu, CSIR, Savanna Agricultural Research Institute, Box 52, Tamale, Ghana; V.A. Clottey, CSIR, Savanna Agricultural Research Institute, Box 52, Tamale, Ghana; J. Kombiok,

CSIR, Savanna Agricultural Research Institute, Box 52, Tamale, Ghana; M. Haruna, CSIR, Savanna Agricultural Research Institute, Box 52, Tamale, Ghana; K.O. Marfo, CSIR, Savanna Agricultural Research Institute, Box 52, Tamale, Ghana. Received 06/30/2003.

**PI 633739. *Vigna unguiculata* (L.) Walp.**

Cultivar. "APAGBAALA"; IT x P-148-1. CV-219. Pedigree - Selected from a three way cross between IT82E-16, Prima and 148-1. Small-sized, dark green leaves that are fairly ovate in shape. Erect with a determinate growth habit. Classified as early maturing, flowering at 39 to 42 days after sowing (DAS) and maturing at 60 to 65 DAS. Flowers white. Pods carried well above the canopy and they number an average of 3.5 per peduncle. Dry seeds have a shiny white coat with a small light brown pigment around the hilum. Dry seeds kidney shaped and have 100 seed weight of 13 g. Displays high levels of resistance to Ghanaian isolates of *Striga gesnerioides*. High levels of tolerance to heat stress during the reproductive phase. Susceptible to heat-induced seed coat browning.

**PI 633740. *Vigna unguiculata* (L.) Walp.**

Cultivar. "MARFO-TUYA"; Sul 518-2. CV-220. Pedigree - Sumbrisogla / 518-2. Erect with a semi-determinate growth habit. Classified as medium maturing, flowering at 41 to 42 days after sowing (DAS) and maturing at 66 to 70 DAS. Flowers white with a tinge of purple in the standard petal. Majority of the pods are carried within the canopy, and the mean number of pods per peduncle is two. Dry seeds have a dull cream luster with brown pigmentation around the helium. Dry seeds fairly round in shape and 100 seed weight of 17 g. Displays high levels of resistance to Ghanaian isolates of *Striga gesnerioides*. Possesses tolerance to heat stress during the reproductive phase.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Developed by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; D.C. Nielson, USDA, ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; D.C. Ogle, USDA, ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; S.A. Young, Utah State University, Plants, Soils, and Biometeorology Department, Logan, Utah 84322-4820, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Steve Larson, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; T.A. Monaco, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States; S.L. Caicco, USDI-BLM, Bureau of Land Management, WO-230, Washington, District of Columbia 20036, United States. Received 09/1998.

**PI 633741. *Elymus elymoides* (Raf.) Swezey *subsp. elymoides***

Wild. T-1223; FISH CREEK; Acc:1223h; W6 20994. GP-90. Collected 08/03/1995 in Idaho, United States. Latitude 43 deg. 21' N. Longitude 113 deg. 52' W. Elevation 1450 m. Highway 20/26 6.1 miles northeast of Carey city center in Blaine County. Pedigree - This population is released as a pre-variety germplasm (natural track), meaning that it has not been subjected to genetic manipulation. Collection from a site classified by USDA-NRCS as Major Land Resource Area B10 (Upper Snake River Lava Plains and Hills). Estimated average annual precipitation at

the site is 380 mm based on extrapolation from official weather stations at Picabo (20.00 km to the southwest) and Craters of the Moon National Monument (23.75 km to the northeast). Removal of the awn without resultant seed damage has been problematic in Sand Hollow big squirreltail germplasm. Mass of the proximal centimeter of the awn was 0.272 mg at Evans Farm, (Millville, UT) in 2001, 33% lower than Sand Hollow. The less robust awn makes the seed more amenable to debearding. Spike disarticulates in a determinate fashion at the base, unlike most *E. elymoides* ssp. *elymoides* accessions that disarticulate indeterminately at each rachis internode.

The following were developed by Tommy E. Carter, USDA, ARS, North Carolina State University, 3127 Ligon Street Box 7631, Raleigh, North Carolina 27695-7631, United States. Received 06/18/2003.

**PI 633742 MAP. *Glycine max* (L.) Merr.**

Cultivar. Pedigree - The original accession, PI 416937, is an introduction from Kanagawa, Japan in 1974. PI 633742 is a new PI assignment of PI 416937 representing one of the parents of NC113 Soybean Mapping Population. The second parent is Young, PI 508266, newly assigned PI 633743. Determinate soybean in midmaturity group V. Leaves large, purple flowers, gray pubescence, and brown pods walls. Seeds yellow with buff hila. Susceptible to soybean cyst nematode (*SCN Heterodera glycines*).

**PI 633743 MAP. *Glycine max* (L.) Merr.**

Cultivar. "Young". Pedigree - Original accession is PI 508266. Bulked increase of an F5 line from the cross Davis x Essex. PI 633743 is a new PI assignment of Young, PI 508266 representing one of the parents of NC113 Soybean Mapping Population. The second parent is PI 416937, newly assigned PI 633742. Determinate type. Maturity group VI. Seeds yellow with buff hila, white flowers, gray pubescence, tan pod walls, and determinant growth habit. Resistant to the leaf diseases bacterial pustule (*Xanthomonas*).

The following were developed by Thomas Gulya, USDA, ARS, North Dakota State University, Northern Crop Science Laboratory, Fargo, North Dakota 58105, United States; Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States; Brady A. Vick, USDA-ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105-5677, United States. Donated by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Received 07/11/2003.

**PI 633744. *Helianthus annuus* L.**

Breeding. HA 434. GP-277. Pedigree - HA 383/HA 341. Increases the genetic diversity for lines used in sunflower breeding and hybrid development programs producing mid-oleic or high-oleic fatty acid compositions. Averaged 861 g kg<sup>-1</sup> oleic acid in seed produced in the 2000 breeding nursery. Height 133 cm compared to 148 cm for the USDA line HA 383. Days to flower 63 d compared to 64 d for the USDA line HA383. Single-headed. Single-seed descent breeding method was utilized.

**PI 633745. *Helianthus annuus* L.**

Breeding. HA 435. GP-278. Pedigree - M9-derived M10 germplasm developed

from a mutagenesis program to alter the fatty acid composition of HA 382 (PI 578871). Averaged 856 g kg<sup>-1</sup> oleic acid in seed produced in the 2000 breeding nursery. Height 140 cm compared to 143 cm for the USDA line HA 382. Days to flower 66 d compared to 65 d for the USDA line HA 382.

**PI 633746. *Helianthus annuus* L.**

Breeding. RHA 436. GP-279. Pedigree - F4-derived F5 fertility restorer germplasm advanced by pedigree selection from the cross RHA 340 (PI 518778)/RHA 344 (PI 509054). Increases the diversity for lines used in sunflower breeding and hybrid development programs producing mid-oleic or high-oleic fatty acid compositions, but also provides protection against prevalent races of downy mildew. Also provides protection against metalaxyl-insensitive strains of downy mildew collected from sunflower production fields of North Dakota in 1998. Averaged 871 g kg<sup>-1</sup> oleic acid compared to 837 g kg<sup>-1</sup> for RHA 344. Height 133 cm compared to 163 cm for RHA 344. Days to flower 63 d compared to 64 d for RHA 344.

**PI 633747. *Helianthus annuus* L.**

Breeding. RHA 437. GP-280. Pedigree - F4-derived F5 fertility restorer germplasm advanced by pedigree selection from the cross RHA 340 (PI 518778)/RHA 344 (PI 509054). Increases the diversity for lines used in sunflower breeding and hybrid development programs producing mid-oleic or high-oleic fatty acid compositions, but also provides protection against prevalent races of downy mildew. Also provides protection against metalaxyl-insensitive strains of downy mildew collected from sunflower production fields of North Dakota in 1998. Averaged 86.2 g kg<sup>-1</sup> oleic acid compared to 837 g kg<sup>-1</sup> for RHA 344. Height 150 cm compared to 163 cm for RHA 344. Days to flower 65 d compared to 64 d for RHA 344.

**PI 633748. *Helianthus annuus* L.**

Breeding. RHA 438. GP-281. Pedigree - F4-derived F5 fertility restorer germplasm advanced by pedigree selection from the cross RHA 340 (PI 5187778)/RHA 344 (PI 509054). Increases the diversity for lines used in sunflower breeding and hybrid development programs producing mid-oleic or high-oleic fatty acid compositions, but also provides protection against prevalent races of downy mildew. Also provides protection against metalaxyl-insensitive strains of downy mildew collected from sunflower production fields of North Dakota in 1998. Averaged 841 g kg<sup>-1</sup> oleic acid compared to 837 g kg<sup>-1</sup> for RHA 344. Height 160 cm compared to 163 for RHA 344. Days to flower 67 d compared to 64 d for RHA 344.

The following were developed by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States; Kassim Al-Khatib, Kansas State University, Agronomy Department, Manhattan, Kansas 66506, United States. Received 07/11/2003.

**PI 633749. *Helianthus annuus* L.**

Genetic. SURES-1. GS-28. Pedigree - F3-derived F4 oilseed maintainer genetic stock obtained from the cross HA 424/3/HA 406//HA 89/SU Res. wild *Helianthus annuus*. Oilseed sunflower maintainer genetic stock with resistance to the herbicide tribenuron and is available for use by sunflower industry and public researchers to create hybrids, parental lines, or germplasm lines. Resistance to tribenuron was obtained from plants of wild *Helianthus annuus* population collected in Kansas. Pollen from these wild plants was transferred to the USDA-ARS Sunflower

Genetics Project, Fargo, ND, in the spring of 1999, and used to pollinate the line HA 89. Further crossing was made to the lines HA 424 and HA 406 to incorporate cultivated traits. Plants do not have anthocyanin pigmentation and have the single-headed characteristic.

**PI 633750. *Helianthus annuus* L.**

Genetic. SURES-2. GS-29. Pedigree - F3-derived F4 oilseed restorer genetic stock obtained from the cross RHA 377/3/RHA 392//RHA 376/SU Res. wild *Helianthus annuus*. Oilseed sunflower restorer genetic stock that has resistance to the herbicide tribenuron and is available for use by sunflower industry and public researchers to create hybrids, parental lines, or germplasm lines. Resistance to tribenuron was obtained from plants of a wild *Helianthus annuus* population collected in Kansas. Pollen from these wild plants was transferred to the USDA-ARS Sunflower Genetics Project, Fargo, ND, in the spring of 1999, and was used to pollinate the line RHA 376. Further crossing was made to the lines RHA 392 and RHA 377 to incorporate cultivated plants. Plants do not have anthocyanin pigmentation and have the recessive branched-headed characteristic.

The following were collected by Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; Fatima Mereles, Facultad de Ciencias Quimicas of the National University, Herbarium, San Lorenzo, Paraguay; Pedro Juan Caballero, Ministry of Agriculture and Livestock, Instituto Agronomico Nacional, Caacupe, Paraguay; David E. Williams, Internat'l Plant Genetic Resources Inst., Regional Office for the Americas, c/o CIAT, Int'l Ctr. for Tropical Agric., Cali, Valle, Colombia. Received 06/17/1998.

**PI 633751. *Capsicum baccatum* L. var. *baccatum***

Wild. WWMC 129; locote i; locote kaavy; Grif 14139. . Collected 05/08/1998 in Paraguari, Paraguay. Latitude 25 deg. 52' 57'' S. Longitude 57 deg. 9' 29'' W. Elevation 280 m. Acahay, Compania Yeguarizo, Cerro Acahay. Near quarry. Plateau, open, degraded woodland, rockface of a cliff. Slope 45 deg., slop aspect east. Soil well-drained, loam, acidic, dark gray. Associated plant species: *Solanum granulosum* leprosum, *Heliotropium*, *Mikania*, *Celtis*, *Solanum* spp. Plant erect and supported, approximately 2 m tall, branches in a pronounced zig zag. Fruits erect, less than 1 cm long, ovoid, bright red at maturity, leaves pilose. No flowers found. Plant infested with galls. No cultivated relatives growing nearby. Plants scarce.

**PI 633752. *Capsicum baccatum* L. var. *baccatum***

Wild. WWMC 136; ky y'; Grif 14146. . Collected 05/14/1998 in Cordillera, Paraguay. Latitude 25 deg. 23' 11'' S. Longitude 57 deg. 8' 23'' W. Elevation 250 m. Caacupe, Compania Caacupe, Hotel Uruguayo. Growing spontaneously in a flowerpot in the patio of a hotel. Plant erect, supported, 50 cm tall. Leaves small (sunny location). Flowers white with greenish-yellow spots at the base of the corolla. Fruits erect, round, 0.7 to 1.2 cm diameter, green, dark at the apex when maturing, shiny red at complete maturation, piquant. Leaves and fruits small and variable, possibly due to stress from growing in a pot in direct sunlight. Eaten by owner of hotel after pickling.

**PI 633753. *Capsicum baccatum* var. *pendulum* (Willd.) Eshbaugh**

Landrace. WWMC 130; locote ky y'; ky y'; Grif 14140. . Collected

05/09/1998 in Paraguari, Paraguay. Latitude 25 deg. 37' 18'' S. Longitude 57 deg. 9' 6'' W. Elevation 130 m. Paraguari, Compania Paraguari. Municipal market. Fruits triangular, 2-5 cm long by 1 cm wide, shiny red, piquant. Cultivated locally. Used as a condiment.

**PI 633754. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. WWMC 135; ky y'; Grif 14145. . Collected 05/13/1998 in Cordillera, Paraguay. Latitude 25 deg. 28' 21'' S. Longitude 56 deg. 52' 48'' W. Elevation 200 m. Itacurubi Cordillera, Compania Pira Yu-i. Base of mountain. Slope 10 deg., slope aspect SW. Soil drainage moderate. Plant erect, 1.7 m tall. Flowers white with yellowish green spots at the base of the corolla. Fruits elongated, triangular, 5 cm long, 1.5 cm wide, pointed at blossom end, shiny red when mature. Plant volunteered. Only one plant found. Not cultivated. Consumed by family members. Used as a condiment and to make pickles. Wild forms are found in the forest, 1,000 m away.

**PI 633755. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. WWMC 138; ky y'; Grif 14148. . Collected 05/14/1998 in Cordillera, Paraguay. Latitude 25 deg. 23' 1'' S. Longitude 57 deg. 2' 45'' W. Elevation 255 m. Piribebuy, Compania Guazu Rokay, Route 2, km. 62, crossroads, Chiperia El Indio. Garden. Valley. Level. Soil loam, soil drainage moderate, no stones. Plant shrubby, woody, 2.0 m tall. Flowers white with yellowish green spots. Fruits triangular, rounded at the end, up to 3 cm long, 2 cm wide, shiny red when mature. Two plants, but only one with mature fruit. Used to make sausages, pickles, and as a condiment for on-site restaurant and home use.

The following were collected by Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 402, BARC-West, Beltsville, Maryland 20705-2350, United States; David E. Williams, Internat'l Plant Genetic Resources Inst., Regional Office for the Americas, c/o CIAT, Int'l Ctr. for Tropical Agric., Cali, Valle, Colombia. Received 06/17/1998.

**PI 633756. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. WW 141; ky y'; aji; Grif 14151. . Collected 05/17/1998 in Central, Paraguay. Latitude 25 deg. 16' S. Longitude 57 deg. 40' W. Asuncion, Compania Asuncion, Pettirossi Market. Fruits conical, elongated and pointed at the blossom end, up to 12 cm long, 4 cm wide, shiny red with thick flesh. Very pleasing physical appearance. Seeds cream-colored. Not ver piquant. Used as a condiment and a vegetable. Could be a landrace or a cultivar.

The following were collected by Fatima Mereles, Facultad de Ciencias Quimicas of the National University, Herbarium, San Lorenzo, Paraguay; Pedro Juan Caballero, Ministry of Agriculture and Livestock, Instituto Agronomico Nacional, Caacupe, Paraguay. Received 05/07/1999.

**PI 633757. *Capsicum baccatum* var. *pendulum*** (Willd.) Eshbaugh  
Landrace. MC 145; ky y'; NGRL 278; Grif 14220. . Collected 07/24/1998 in Guaira, Paraguay. Latitude 25 deg. 59' 33'' S. Longitude 56 deg. 10' 33'' W. House garden. E.A. Garay, Compania Mbocaya, 2.5 km from the center of town. House garden. Soil texture sandy loam, drainage moderate. Slope 5 degrees, slope aspect East. Plant erect, approximately 1 m tall, stem woody. Many branches, with branches very

distinct, devoid of leaves, but with new leaves growing. No flowers. Fruits pendulous, brilliant red at maturity, 2.5 cm long, slender, piquant. Seeds germinating in the soil. Plant begins to sprout leaves in July, leafless in winter. Fruits principally consumed at home. Harvested continually.

**PI 633758. *Capsicum baccatum* var. *pendulum* (Willd.) Eshbaugh**  
Landrace. MC 147; ky y'; NGRL 280; Grif 14222. . Collected 07/26/1998 in Alto Parana, Paraguay. Latitude 26 deg. 3' 34'' S. Longitude 55 deg. 14' 28'' W. Naranjal, Compania Agropeco. House garden. House garden on hill. Soil texture loam, drainage moderate. Slope 20 degrees, slope aspect East. Plant erect, approximately 1 m tall, branches arranged in zig zag. Fruits pendulous, green, turning brilliant red at maturity.

The following were developed by M. T. Moreno, Instituto Nacional de Investigaciones Ag, CIRDA 10 Apdo 240, Cordoba, Cordoba, Spain; Salvador Nadal, CIFA Alameda del Obispo, Departamento de Mejora Agronomia, Avda Menendez Pidal s/n, Cordoba, Spain; J.I. Cubero, Universidad de Cordoba, Depto. de Genetica, E.T.S.I.A.M., Cordoba, Spain. Received 07/08/2003.

**PI 633759 QUAR. *Vicia faba* L.**  
Cultivar. "RETACA". CV-224. Pedigree - Selection from the cross Alameda (indeterminate-growth cv. well adapted to the local environment) and a mutant "ti" line (determinate-growth). Determinate growth habit.

The following were developed by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States; G.L. Olson, University of Kentucky, Dept. of Agronomy, Lexington, Kentucky 40546-0091, United States. Received 07/15/2003.

**PI 633760. *Trifolium pratense* L.**  
Genetic. Short internode L38-1810. GS-13. Pedigree - Single plant selection from closely bred multiple cotyledon stock L-38-1485. Crossing and selfing data suggested that the character was conditioned by a single recessive gene for which we suggest the gene symbol "s". Accordingly, the normal condition would be "SS" or "Ss" and the short internodes "ss". Short internode plants usually present a rosetted appearance but flower sparingly under long days. Genetic stock discovered in 1995 in which a single plant expressed shortened internodes but normal size leaflets. In the summer of 2003, these short internode plants were crossed by hand.

The following were developed by Stoneville Pedigreed Seed Company, Stoneville, Mississippi, United States. Received 07/31/2003.

**PI 633761 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "ST 3539BR". PVP 200200276.

The following were developed by California Planting Cotton Seed Distributors, 30597 Jack Ave., Shafter, California 93263, United States. Received 07/31/2003.

**PI 633762 PVPO. *Gossypium hirsutum* L.**

Cultivar. "Acala Sierra RR". PVP 200300282.

The following were developed by Cerealtoscana SpA, Italy. Received 07/31/2003.

**PI 633763 PVPO. *Eruca sativa* Mill.**  
Cultivar. "NEMAT". PVP 200300284.

**PI 633764 PVPO. *Brassica juncea* (L.) Czern.**  
Cultivar. "ISCI 61". PVP 200300285.

The following were developed by Oregon State University, Oregon Agriculture Experiment Station, Corvallis, Oregon 97331, United States. Received 07/31/2003.

**PI 633765 PVPO. *Triticum aestivum* L.**  
Cultivar. "OCRF-101". PVP 200300286.

The following were developed by DLF International Seeds, Inc., United States. Received 07/31/2003.

**PI 633766 PVPO. *Lolium perenne* L.**  
Cultivar. "ARRIVAL". PVP 200300289.

The following were developed by Monsanto Technology LLC, United States. Received 07/31/2003.

**PI 633767 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "I060064". PVP 200300293.

**PI 633768 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "I104774". PVP 200300294.

**PI 633769 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "I180576". PVP 200300295.

**PI 633770 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "I292796". PVP 200300296.

**PI 633771 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "I390171". PVP 200300297.

The following were developed by Robert A. Graybosch, USDA-ARS, University of Nebraska, Dept. of Agronomy, 344 Keim Hall, Lincoln, Nebraska 68583, United States. Received 08/05/2003.

**PI 633772. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y4514; NSGC 9313. Pedigree - Bai Huo/Kanto 107, F2-1//Ike (97GC1014wx)/3/psb7794.

**PI 633773. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y4518; NSGC 9314. Pedigree - Bai Huo/Kanto 107,

F2-1//Ike(97GC1014wx)/3/psb7794.

**PI 633774. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y4529; NSGC 9315. Pedigree - Bai Huo/Kanto 107, F2-1//Ike(97GC1014wx)/3/96MD7413-10.

**PI 633775. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y4530; NSGC 9316. Pedigree - Bai Huo/Kanto 107, F2-1//Ike(97GC1014wx)/3/96MD7413-10.

**PI 633776. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y4532; NSGC 9317. Pedigree - Bai Huo/Kanto 107, F2-1//Ike(97GC1014wx)/3/96MD7413-10.

**PI 633777. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y4648; NSGC 9318. Pedigree - Bai Huo/Kanto 107, F2-1//Ike(97GC1014wx)/3/96MD7413-6.

**PI 633778. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y4663; NSGC 9319. Pedigree - Bai Huo/Kanto 107, F2-1//Ike(97GC1014wx)/3/96MD7413-6.

The following were developed by Solomon Kibite, Agriculture & Agri-Food Canada, Research Centre, 6000 C & E Trail, Lacombe, Alberta T4L 1W1, Canada; G. Clayton, Agriculture & Agri-Food Canada, Research Center, 6000 C & E Trail, Lacombe, Alberta T4L 1W1, Canada. Received 08/04/2003.

**PI 633779. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-01. GP-71. Pedigree - OT253 / Marion. Released 2002. Naked near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633780. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-02. GP-72. Pedigree - OT253 / Marion. Released 2002. Covered near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization req.

**PI 633781. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-03. GP-73. Pedigree - OT253 / Marion. Released 2002. Covered near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633782. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-04. GP-74. Pedigree - OT253 / Marion. Released 2002. Naked near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633783. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-05. GP-75. Pedigree - OT253 / Marion. Released 2002. Naked near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and do not have vernalization requirements.

**PI 633784. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-06. GP-76. Pedigree - OT253 / Marion. Released 2002. Covered near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633785. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-07. GP-77. Pedigree - OT253 / Marion. Released 2002. Naked near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633786. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-08. GP-78. Pedigree - OT253 / Marion. Released 2002. Covered near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633787. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-09. GP-79. Pedigree - OT253 / Marion. Released 2002. Covered near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the

expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633788. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-10. GP-80. Pedigree - OT253 / Marion. Released 2002. Naked near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633789. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-11. GP-81. Pedigree - OT253 / Marion. Released 2002. Covered near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633790. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-12. GP-82. Pedigree - OT253 / Marion. Released 2002. Naked near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633791. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-13. GP-83. Pedigree - OT253 / Marion. Released 2002. Naked near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633792. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-14. GP-84. Pedigree - OT253 / Marion. Released 2002. Covered near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633793. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-15. GP-85. Pedigree - OT253 / Marion. Released 2002. Covered near-isogenic line developed for comparative

research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

**PI 633794. *Avena sativa* L.**

Breeding. Pureline. LAO-474-ISO-16. GP-86. Pedigree - OT253 / Marion. Released 2002. Naked near-isogenic line developed for comparative research of naked and covered seed genotypes and for quantifying the agronomic effects of the genes conditioning nakedness. Also can be used to determine the genetic, physiological and biochemical basis for the expression of the naked seed trait in oats. Susceptible to crown rust and stem rust and moderately susceptible to smut and BYDV. Spring growth habit and does not have vernalization requirements.

The following were developed by Mark D. Lazar, Texas A&M University, Research & Extension Center, 6500 Amarillo Blvd. West, Amarillo, Texas 79106, United States; Milton C. Engelke, Texas A&M University, Research and Extension Center, 17360 Coit Road, Dallas, Texas 75252, United States; Lloyd R. Nelson, Texas A&M University, Agricultural Research & Extension Center, P.O. Box 200, Overton, Texas 75684, United States; R. H. White, Texas A&M University, Turfgrass Physiology, College Station, Texas, United States; J. Crowder, Texas A&M Univ. Agric. REC, P.O. Box 200, Overton, Texas 75684, United States; Devesh Singh, Barenbrug USA, 33477 Hwy 99E, P.O. Box 239, Tangent, Oregon 97389, United States. Received 08/04/2003.

**PI 633795. *Lolium multiflorum* Lam.**

Cultivar. "PANTERRA"; BAR Lm 1001b; TXR98-DBDF. PVP 200400091; CV-233. Pedigree - Originated from Axcella (a TAES release). Diploid (2n=2x=14). Dwarf annual ryegrass selected as a turf grass. In the seedling stage, rolled leaves and no auricles. Plant stature relatively short compared to Gulf or TAM 90 forage type annual ryegrasses but similar to Axcella turf type ryegrass. Flag leaf length 17 cm compared to 18 for Axcella, 20 for Gulf, and 23 for TAM 90. Flag leaf width 1 mm less than Axcella, and Gulf, and 2 mm less than TAM 90. Spike length similar to Axcella, but about 6 cm shorter than TAM 90. Awn length about 7 mm. Weight of 10 spikes slightly more than Axcella and Gulf but less than TAM 90 at Overton, Texas. Seed weight for 1000 seed grown in Oregon was 2.3 g/1000 seed compared to 3.1, 2.7 and 2.4 g/1000 seed for Axcella, TAM 90, and Gulf, respectively. Seed width about 2 mm and seed length about 7 mm. Coleoptile color, upon emergence is purple. Anther color yellow. Very high capacity for tillering. Growth rate in a lawn is about 10% less than Axcella at Overton, Texas. Not infected.

The following were developed by O.L. May, USDA, ARS, Pee Dee Research and Education Center, Clemson Univ., Dept. of Agronomy, Florence, South Carolina 29501, United States. Received 07/16/2003.

**PI 633796. *Gossypium hirsutum* L.**

Breeding. GA98028. GP-785. Pedigree - PD 5529 / SG 92337. Combines high yield potential, desired fiber qualities, and large seed promoting emergence and stand establishment. Compared with popular cvs., produced in southeastern U.S., has similar or higher yield, but combines longer

upper-half mean fiber length, fiber strength, and lower micronaire readings desired by fiber processors. Seedlings average 10 grams per 100 seed, 1-2 grams more than popular commercial cvs. Larger seed promotes seedling vigor and stand establishment compared with sometimes low vigor of seed of today's small seeded cvs.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Donated by Aimak Dj. Djangaliev, Academy of Sciences Rep. of Kazakhstan, Main Botanical Garden, 187 Tulebaev st., apt. 11, Almaty, Alma-Ata 480091, Kazakhstan; Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States; Gaylord Mink, Washington State University, Irrigated Agricultural Res. & Ext. Ctr., Route 2, Box 2953-A, Prosser, Washington 99350, United States. Received 11/01/1993.

**PI 633797. *Malus sieversii* (Ledeb.) M. Roem.**

KAZ 93-24-01. Collected 09/13/1993 in Taldyqorghhan, Kazakhstan. Latitude 45 deg. 24' N. Longitude 80 deg. 24' E. Elevation 1305 m. Kazakhstan, Sarkand, Village of Topolevka, Forestry Camp #16 Topolevka Forestry Area, Taldy-Kurgan region, Soldier's Gorge, Dzhungarksy Alatau, just S of campsite, E side of road. Pedigree - Wild. Comments:: Fruit: 5.5 x 5.0 cm, round, Gala type, red carmine strip on yellow background; flavor: aromatic, somewhat bitter, not astrigent, good flavor; fruit disease: scab; leaf disease: none; insect: one aphid; one of the best apples found. Tree: height 8-10 m; upright habit; erect spurs. Descript- ion - area of collection: soil: moist humus; slope: 20% NW facing; rainfall: 750-800 mm; surrounding plants: Rhamus, Crataegus, Quercus, Tilia.

Unknown source. Received 11/02/1993.

**PI 633798. *Malus sieversii* var. *kirghisorum* (Al. Fed. & Fed.) Ponomar.**

KAZ 93-42-01; GMAL 3574. Collected 09/22/1993 in Kyrgyzstan. Latitude 41 deg. 23' N. Longitude 73 deg. 6' E. Elevation 1335 m. Kyrgyzstan, near Dzhalal-abad, Koumhama Village, Ferganskiy Kherbet, open grazed meadow, at edge of hill and flat area, NE of village. Pedigree - Wild. Comments:: Fruit: 3.5 x 3.5 cm, oblong, deep pedicel cavity, medium pedicel, yellow with red blush, red around pedicel if ripe; flavor: bland, sweetish; fruit disease: scab. Tree: height 8 m; spreading habit; thin. Description - area of collect- ion: soil: dry, humus; slope: gentle W facing; rainfall: 700-1700 mm(1190 mm avg.); surrounding plants: Prunus sogdiana.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States; James Luby, University of Minnesota, Department of Horticultural Science, 342 Alderman Hall, St. Paul, Minnesota 55108, United States; Elizabeth E. Dickson, The University of Calgary, Herbarium, Dept. of Biological Sciences, 2500 University Drive NW, Calgary, Alberta T2N 1N4, Canada. Donated by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 09/21/1995.

**PI 633799. *Malus sieversii*** (Ledeb.) M. Roem.  
Wild. Kaz 95 10-03F; GMAL 3635. Collected 08/31/1995 in Kazakhstan.  
Latitude 47 deg. 15' 52'' N. Longitude 81 deg. 35' 5'' E. Elevation 1000  
m. Semipalitinsk Region (Tarbagatai Mountain Range). 20 km. North of  
Urdzhar, 3-4 km. Northeast of Alekseyevka. Collected in Middle and South  
Valley, on slopes or edges. Slope incline: 5 degrees. Aspect: West.  
Dominant tree sp.: *M. sieversii*. Dominant shrub sp.: *Amygdalus*;  
Associated-Rosa. Dominant herbaceous: Aster; Assoc.-Xanthium. Sampled  
30 fruits from 1 tree. Fruit is firm, bruises easily. Nice finish -  
'Golden Delicious' type. Very free of disease. Spur type tree.

**PI 633800. *Malus sieversii*** (Ledeb.) M. Roem.  
Wild. Kaz 95 18-10; GMAL 3689. Collected 09/10/1995 in Kazakhstan.  
Latitude 42 deg. 53' 18'' N. Longitude 69 deg. 52' 52'' E. Elevation 910  
m. Karatau Province. Boraldy River Forest area. 5 km. North of Boraldy  
Forest Camp which is 80 km. North of Chimkent. Xerophytic. Very stony  
soil, dry. Slope incline: 10 degrees, N-NW. Rainfall: less than 300 mm.  
Dominant tree sp: *Crataegus*; Associated-M. *Sieversii*. Dominant shrub sp:  
*Amygdalus*; Assoc-Cerasus. Associated herbaceous: Rheum, Tulipa. Sampled  
60 fruits from 1 tree. Fruit is firm with aromatic flesh flavor. Over  
color is 75% red. Very clean. Spur type tree.

**PI 633801. *Malus sieversii*** (Ledeb.) M. Roem.  
Wild. Kaz 95 18-02P-33; GMAL 4002. Collected 09/10/1995 in Kazakhstan.  
Latitude 42 deg. 53' 18'' N. Longitude 69 deg. 52' 52'' E. Elevation 910  
m. Karatau Province. Boraldy River Forest area. 5 km. North of Boraldy  
Forest Camp which is 80 km. North of Chimkent. Landform: slightly  
inclined plateau. Xerophytic. Very stony soil, dry. Slope incline: 10  
degrees, N-NW. Rainfall: less than 300 mm. Dominant tree sp: *Crataegus*;  
Associated-M. *Sieversii*. Dominant shrub sp: *Amygdalus*; Assoc-Cerasus.  
Associated herbaceous: Rheum, Tulipa. Sampled 8 fruits from 1 tree.  
Fruit is firm. Mostly spur-type. Very tenacious-late season type.  
Drought tolerant.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell  
University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United  
States. Received 09/19/1996.

**PI 633802. *Malus sieversii*** (Ledeb.) M. Roem.  
Wild. KAZ 96 08-17; GMAL 4053. Collected 09/14/1996 in Kazakhstan.  
Latitude 42 deg. 39' 45'' N. Longitude 70 deg. 15' 13'' E. Elevation 930  
m. Kok Bulak (Black Spring) Forestry Camp. 35 km southeast of Boraldy  
Camp visited in 1995. Collections made in and around camp-north, east,  
south of camp. Variable and open, stream bed and hillsides. Rainfall  
275mm. Dominant tree sp: *Crataegus*; Assoc.-*Malus*, *Vitis*, *Morus Rhamnus*.  
Dominant shrub sp: *Amygdalus*, *Pyrus*, *Rosa*. Dominant herbaceous: Grasses.  
Sampled 40 fruits from 1 tree. Flesh flavor is aromatic and sweet.  
Fruit size is larger than 50mm. Free of disease. Heavy codling moth,  
nice apple. Scion also collected.

**PI 633803. *Malus sieversii*** (Ledeb.) M. Roem.  
Wild. KAZ 96 02-01P-11; GMAL 4087. Collected 08/30/1996 in Kazakhstan.  
Latitude 43 deg. 7' 9'' N. Longitude 76 deg. 47' 54'' E. Elevation 1260  
m. Zielisky Alatau. 17 km SSw of Almaty center-Aksay river. West side of  
Zieliesky Apple Belt. Landform: Valley near river. Soil: Gravely loam,  
good drainage, some stone. Incline flat + 15%, NW. Rainfall 700mm.

Dominant tree sp: *Malus sieversii*; Assoc-Apricot, *Crataegus*. Dominant shrub sp: *Berberis*, *Hippophae*; Assoc-Rubus, *Rosa*. Dom. herb-Hops; Assoc-Geranium. Sampled 8 fruits from 20 trees. Flesh flavor is acid. Light scab.

The following were collected by Zhiqin Zhou, Southwest Agri. University, Dept. of Horticulture, Bei-Bei, Sichuan, China. Donated by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 10/23/1997.

**PI 633804. *Malus prattii* (Hemsl.) C. K. Schneid.**

Wild. CH97 01-26; GMAL 4358. Collected 09/18/1997 in Sichuan, China. Latitude 29 deg. 32' 6" N. Longitude 103 deg. 19' 54" E. Elevation 2280 m. Emei County, Emei city, level area near the road. Many waterfalls in area. Tree Size Uniformity: Variable. Disease Uniformity: Uniform. Annual Rainfall: 1593.8mm Flat area; 1959.8mm Mountain top. Soil texture: Clay Loam, very stoney, well drained. Dom. tree sp: Bamboo; Dom. shrub sp: *Rhododendron*, Assoc: *Rubus*. Aspect-South, gradual slope partial canopy. Landform: mountain. Additional Habitat Notes: Material was gathered in a level area near the road. Most main trunks had been cut and suckered. Away from road, trees were taller and greater in circumference. Well drained soil probably due to the steep slope. Sampled 108 fruits from each of the 25 trees. Fruits had immature seeds, white; may not germinate. Monkeys got 5 of the 25 samples. Bulk sample mixed by monkeys.

The following were collected by Lou Yang, Southwest Agri. University, Dept. of Horticulture, Beibei, Sichuan, China. Donated by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 10/23/1997.

**PI 633805. *Malus transitoria* (Batalin) C. K. Schneid.**

Wild. CH97 02-03; GMAL 4361. Collected 09/21/1997 in Sichuan, China. Latitude 32 deg. 10' N. Longitude 101 deg. 45' E. Elevation 2850 m. Maerkang County, Yaerdu village. Da Yaerzu Protection Area. Niduni Ravine. 126 km. east of Maerkang, then 15 km. northeast. Lat-Long estimated from map, not measured by GPS. Annual Rainfall: 800-900mm. Shrubs were the dominant vegetation type. Partial canopy, Alpine temperature. Landform: mountain, half way up. Additional Weather Notes: Rainfall in concentrated from May to Sept. There are spring and summer droughts. Hail and frost damage occur. Additional Habitat Notes: Area size large. *Malus toringoides* present but not collected. Tree heights ranged from 1.5 to 3m. with more than 1 base, very thorny. Trees were shrubs, lots of them, couldn't locate in time. Sampled estimated 165 fruits from 9 trees. Leaves look very clean, very little spotting.

**PI 633806. *Malus transitoria* (Batalin) C. K. Schneid.**

Wild. CH97 02-04; GMAL 4362. Collected 09/21/1997 in Sichuan, China. Latitude 32 deg. 10' N. Longitude 101 deg. 45' E. Elevation 2850 m. Maerkang County, Yaerdu village. Da Yaerzu Protection Area. Niduni Ravine. 126 km. east of Maerkang, then 15 km. northeast. Lat-Long estimated from map, not measured by GPS. Annual Rainfall: 800-900mm. Shrubs were the dominant vegetation type. Partial canopy, Alpine temperature. Landform: mountain, half way up. Additional Weather Notes: Rainfall in concentrated from May to Sept. There are spring and summer

droughts. Hail and frost damage occur. Additional Habitat Notes: Area size large. *Malus toringoides* present but not collected. Tree heights ranged from 1.5 to 3m. with more than 1 base, very thorny. Trees were shrubs, lots of them, couldn't locate in time. Sampled estimated 165 fruits from 9 trees.

The following were collected by Zhiqin Zhou, Southwest Agri. University, Dept. of Horticulture, Bei-Bei, Sichuan, China. Donated by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 10/23/1997.

**PI 633807. *Malus hupehensis*** (Pamp.) Rehder

Wild. CH97 03-01; GMAL 4369. Collected 09/21/1997 in Sichuan, China. Latitude 31 deg. 57' 21'' N. Longitude 102 deg. 16' 32'' E. Elevation 2930 m. Maerkang County, Dananzugou village. 5 km. northeast of Maerkang. Aspect-South, partial canopy. Incline **PI 633808. *Malus toringoides***

(Rehder) Hughes

Wild. CH97 03-02; GMAL 4370. Collected 09/21/1997 in Sichuan, China. Latitude 31 deg. 57' 21'' N. Longitude 102 deg. 16' 32'' E. Elevation 2930 m. Maerkang County, Dananzugou village. 5 km. northeast of Maerkang. Aspect-South, partial canopy. Incline **PI 633809. *Malus kansuensis***

(Batalin) C. K. Schneid.

Wild. CH97 03-11; GMAL 4378. Collected 09/21/1997 in Sichuan, China. Latitude 31 deg. 56' 49'' N. Longitude 102 deg. 16' 17'' E. Elevation 2930 m. Maerkang County, Dananzugou village. 5 km. northeast of Maerkang. Aspect-South, partial canopy. Incline **PI 633810. *Malus kansuensis***

(Batalin) C. K. Schneid.

Wild. CH97 03-20; GMAL 4387. Collected 09/21/1997 in Sichuan, China. Latitude 31 deg. 56' 41'' N. Longitude 102 deg. 16' 12'' E. Elevation 2930 m. Maerkang County, Dananzugou village. 5 km. northeast of Maerkang. Aspect-South, partial canopy. Incline **PI 633811. *Malus toringoides***

(Rehder) Hughes

Wild. CH97 04-08; GMAL 4396. Collected 09/21/1997 in Sichuan, China. Latitude 31 deg. 54' 5'' N. Longitude 102 deg. 7' 8'' E. Elevation 2600 m. Town of Songang, 10km. west of Maerkang. Similar coordinates 90 m. change in elevation on sides of terraces. Soil texture: silt loam, brown. Slope 85 degrees, cliff; Aspect-East, open, sunny. Landform: edge of Tibetans. Additional Weather Notes: Rainfall in concentrated from May to Sept. There are spring and summer droughts. Hail and frost damage occur. Additional Habitat Notes: Collection tree located on east facing cliff. Sampled estimated 97 fruits from estimated 24 trees. Fruits are football shaped.

**PI 633812. *Malus hupehensis*** (Pamp.) Rehder

Wild. CH97 04-13; GMAL 4401. Collected 09/21/1997 in Sichuan, China. Latitude 31 deg. 54' 6'' N. Longitude 102 deg. 7' 10'' E. Elevation 2680 m. Town of Songang, 10km. west of Maerkang. Similar coordinates 90 m. change in elevation on sides of terraces. Soil texture: silt loam, brown. Slope 85 degrees, cliff; Aspect-East, open, sunny. Landform: edge of Tibetans. Additional Weather Notes: Rainfall in concentrated from May to Sept. There are spring and summer droughts. Hail and frost damage occur. Additional Habitat Notes: Collection tree located on east facing cliff. Sampled estimated 97 fruits from estimated 24 trees. Some leaf spotting; in general, leaves look good. No scab.

**PI 633813. *Malus prattii*** (Hemsl.) C. K. Schneid.

Wild. CH97 05-03; GMAL 4405. Collected 09/23/1997 in Sichuan, China. Latitude 31 deg. 43' 14'' N. Longitude 103 deg. 54' 58'' E. Elevation 1800 m. Town of Mao xian ping, 6km. northeast of Maoxian. Loam, dark brown soil. Slope 15-20% incline. Aspect-South, partial canopy. Landform: mountain, higher in this area. Dominant tree sp: Oak; Assoc: Juglans, Prunus. Assoc shrub: Rosa, Corylus, Vitis, Actinidin, Viburnum. Additional Habitat Notes: Collection tree located on south side of slope, 10% incline. Sampled 30-50 fruits each from 7 trees. Some spotting on leaves, no leaf lobing.

**PI 633814. *Malus toringo* (Siebold) Siebold ex de Vriese**

Wild. CH97 05-06; GMAL 4406. Collected 09/23/1997 in Sichuan, China. Latitude 31 deg. 43' 14'' N. Longitude 103 deg. 54' 58'' E. Elevation 1800 m. Town of Mao xian ping, 6km. northeast of Maoxian. Loam, dark brown soil. Slope 15-20% incline. Aspect-South, partial canopy. Landform: mountain, higher in this area. Dominant tree sp: Oak; Assoc: Juglans, Prunus. Assoc shrub: Rosa, Corylus, Vitis, Actinidin, Viburnum. Additional Habitat Notes: Collection tree located on south side of slope, 20% incline. Sampled 30-50 fruits each from 7 trees. Partial leaf lobing.

**PI 633815. *Malus toringo* (Siebold) Siebold ex de Vriese**

Wild. CH97 05-08; GMAL 4407. Collected 09/23/1997 in Sichuan, China. Latitude 31 deg. 43' 14'' N. Longitude 103 deg. 54' 58'' E. Elevation 1800 m. Town of Mao xian ping, 6km. northeast of Maoxian. Loam, dark brown soil. Slope 15-20% incline. Aspect-South, partial canopy. Landform: mountain, higher in this area. Dominant tree sp: Oak; Assoc: Juglans, Prunus. Assoc shrub: Rosa, Corylus, Vitis, Actinidin, Viburnum. Additional Habitat Notes: Collection tree located on south side of slope, 20% incline. Sampled 30-50 fruits each from 7 trees. Partial leaf lobing.

The following were collected by Lou Yang, Southwest Agri. University, Dept. of Horticulture, Beibei, Sichuan, China. Donated by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 10/23/1997.

**PI 633816. *Malus zhaojiaoensis* N. G. Jiang**

Wild. CH97 06-02; GMAL 4412. Collected 09/25/1997 in Sichuan, China. Latitude 28 deg. 0' N. Longitude 102 deg. 48' E. Elevation 2360 m. Zhaojue county, Wa du village. Between Xichong and Zhaojue; Tang mu village (Natural Protection Area). Mountainous yellow sandy loam soil. Slope incline 10 degrees; Aspect-East, partial canopy, Alpine temperature. Average temp: 10.9c. Jan. ave. temp: 0.4, July ave. temp: 19.4. Cumm. temp. above 10 degrees: 2954.1. Annual rainfall: 1016.9mm. Additional Weather Notes: June to Sept. rainfall accounts for 70% of the average total yearly rainfall. Sometimes there are spring droughts. Sometimes there is hail, low temp. and frost in fall. There also can be fall waterlogging of the soil. Sampled average 54 M. zhaojiaoensis fruit from 11 trees, and 15 M. prattii fruit from 1 tree. Trees had few fruit, elongate, persistent calyx, varied size. Some leaf spotting. Oldest tree was 80-100 yrs old. Pop: over 50; very scattered dist.

**PI 633817. *Malus zhaojiaoensis* N. G. Jiang**

Wild. CH97 06-07; GMAL 4417. Collected 09/25/1997 in Sichuan, China. Latitude 28 deg. 0' N. Longitude 102 deg. 48' E. Elevation 2360 m.

Zhaojue county, Wa du village. Between Xichong and Zhaojue; Tang mu village (Natural Protection Area). Mountainous yellow sandy loam soil. Slope incline 10 degrees; Aspect-East, partial canopy, Alpine temperature. Average temp: 10.9c. Jan. ave. temp: 0.4, July ave. temp: 19.4. Cumm. temp. above 10 degrees: 2954.1. Annual rainfall: 1016.9mm. Additional Weather Notes: June to Sept. rainfall accounts for 70% of the average total yearly rainfall. Sometimes there are spring droughts. Sometimes there is hail, low temp. and frost in fall. There also can be fall waterlogging of the soil. Sampled average 54 *M. zhaojiaoensis* fruit from 11 trees, and 15 *M. prattii* fruit from 1 tree. Trees had few fruit, elongate, persistent calyx, varied size. Some leaf spotting. Oldest tree was 80-100 yrs. old. Pop: over 50; very scattered dist.

The following were collected by Zhiqin Zhou, Southwest Agri. University, Dept. of Horticulture, Bei-Bei, Sichuan, China. Donated by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 10/23/1997.

**PI 633818. *Malus hupehensis*** (Pamp.) Rehder

Wild. CH97 07-07; GMAL 4427. Collected 09/30/1997 in Sichuan, China. Latitude 29 deg. 54' 44'' N. Longitude 106 deg. 40' 46'' E. Elevation 870 m. Jiangbei (also called Ye han ping), Yu bei district, Baziai village. Collection made on both sides of Baziai on mountain. Loam soil, very stoney, well draine. Slope incline 10 degrees; Aspect-East, densely shaded & partial canopy. Landform: foothills. Climate: subtropical. Dominate tree sp: Fir, Assoc: Quercus (shrub height). Pop: 100-500 trees; patchy dist. Additional Weather Notes: Some spring droughts. More often summer droughts. 9/10 years have drought. Some places occasionally have large winds, hail, and heavy rain. Additional Habitat Notes: In some places the *Malus* grows under a canopy of fir. In other places it's at a field margin or growing with its own branches forming the top of the canopy. Tree Size Uniform: variable (esp. due to cutting). (1-4 or 5m) Tree size 3 meters. 50% of trees fruiting. Sampled estimated 33 fruits each from 35 trees. Some insect damage on leaves.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 09/14/1998.

**PI 633819. *Malus orientalis*** Uglitzk.

Wild. RUS 98 02-01; GMAL 4467. Collected 07/25/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 55' 12'' N. Longitude 38 deg. E. Elevation 100 m. 5 km. south of Krymsk, near an ancient Greek village of Alevra. Slight SE facing slope. The population area covered about 1 km. Associated species: *Cornus mas*, *Pyrus sylvestris*, *Crataegus monogyna*, *Prunus spinosa*. Rainfall: 640 mm. annually. Leaves and seeds collected.

**PI 633820. *Malus orientalis*** Uglitzk.

Wild. RUS 98 03-05; GMAL 4477. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 25' 48'' N. Longitude 40 deg. 9' E. Elevation 400 m. Leaves and seeds collected.

**PI 633821. *Malus orientalis*** Uglitzk.

Wild. RUS 98 04-02; GMAL 4482. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 24' 36'' N. Longitude 40 deg. 7' 12'' E.

Elevation 500 m. 7 km. southwest of Shuntuk, in the "Horse mound" area. Trees were 35 to 100 years old. The population area covered about 3 km. Associated species: *Cornus mas*, *Pyrus sylvestris*, *Crataegus monogyna*, *Prunus spinosa*. Rainfall: 800-1000 mm. annually. Leaves and seeds collected.

**PI 633822. *Malus orientalis* Uglitzk.**

Wild. RUS 98 05-05; GMAL 4491. Collected 07/26/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 27' N. Longitude 40 deg. 12' 36'' E. Elevation 300 m. 3 km. east of Shuntuk, along the Bileyi river with the limestone cliffs on the opposite bank of the river. Trees were 35 to 80 years old. The population area covered about 1 km. Associated species: *Cornus mas*, *Pyrus sylvestris*, *Crataegus monogyna*, *Prunus spinosa*. Rainfall: 800-1000 mm. annually. Leaves and seeds collected.

**PI 633823. *Malus orientalis* Uglitzk.**

Wild. RUS 98 07-01; GMAL 4493. Collected 07/27/1998 in Caucasus, Former Soviet Union. Latitude 44 deg. 13' 48'' N. Longitude 40 deg. 10' 48'' E. Elevation 700 m. 25 km. south of Shuntuk, along mountain road. Associated species: *Cornus mas*, *Pyrus sylvestris*, *Crataegus monogyna*, *Prunus spinosa*. Rainfall: 800-1000 mm. annually. Leaves and seeds collected.

The following were developed by Martin Geibel, Genbank Obst, Bergweg 23, Dresden-Pillnitz, Saxony D-01326, Germany. Received 03/09/1999.

**PI 633824. *Malus sylvestris* (L.) Mill.**

Oberwartha 5 x Klipphausen; GMAL 4495. Collected in Germany. Latitude 51 deg. 22' N. Longitude 14 deg. 6' E. Saxonia (Ost-Erzgebirge and Elbe-Valley, near Dresden). Pedigree - *M. sylvestris*. Oberwartha 5 x *M. sylvestris*, Klipphausen. Cross of wild *M. sylvestris*; clone of this is Q 37769.

**PI 633825. *Malus domestica* Borkh.**

Barenhecke 3 x Klipphausen; GMAL 4497. Latitude 51 deg. 22' N. Longitude 14 deg. 6' E. Saxonia (Ost-Erzgebirge and Elbe-Valley, near Dresden). Pedigree - Barenhecke 3 x Klipphausen. Cross of wild *M. sylvestris*.

**PI 633826. *Malus domestica* Borkh.**

Oelsen 2 x Hartmann-Muhle 1; GMAL 4498. Latitude 51 deg. 22' N. Longitude 14 deg. 6' E. Saxonia (Ost-Erzgebirge and Elbe-Valley, near Dresden). Pedigree - Oelsen 2 x Hartmann-Muhle 1. Cross of wild *M. sylvestris*.

**PI 633827. *Malus domestica* Borkh.**

Hartmann-Muhle 1 x Oberwartha 2; GMAL 4499. Collected in Germany. Latitude 51 deg. 22' N. Longitude 14 deg. 6' E. Saxonia (Ost-Erzgebirge and Elbe-Valley, near Dresden). Pedigree - *M. sylvestris*, Hartmann-Muhle 1 x *M. sylvestris*, Oberwartha 2. Cross of wild *M. sylvestris*.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 10/04/1999.

- PI 633828. *Malus orientalis*** Uglitzk.  
Wild. 99TU-08-02; GMAL 4513. Collected 09/15/1999 in Artvin, Turkey.  
Latitude 40 deg. 13' 9'' N. Longitude 42 deg. 22' 53'' E. Elevation 1470  
m. Village of Savsat.
- PI 633829. *Malus orientalis*** Uglitzk.  
Wild. 99TU-16-01; GMAL 4535. Collected 09/15/1999 in Gumushane, Turkey.  
Latitude 40 deg. 22' N. Longitude 39 deg. 41' 42'' E. Elevation 1550 m.  
Village of Keci Kaya.
- PI 633830. *Malus orientalis*** Uglitzk.  
Wild. 99TU-20-01; GMAL 4539. Collected 09/15/1999 in Tokat, Turkey.  
Latitude 40 deg. 32' 53'' N. Longitude 36 deg. 37' 42'' E. Elevation  
1030 m. Village of Avlunar.
- PI 633831. *Malus orientalis*** Uglitzk.  
Wild. 99TU-26-02; GMAL 4554. Collected 09/15/1999 in Amasya, Turkey.  
Latitude 40 deg. 55' N. Longitude 35 deg. 21' 27'' E. Elevation 1300 m.  
Village of Merzifon.
- PI 633832. *Malus orientalis*** Uglitzk.  
Wild. 99TU-27-01; GMAL 4556. Collected 09/15/1999 in Kastamonu, Turkey.  
Latitude 41 deg. 39' 34'' N. Longitude 33 deg. 35' 9'' E. Elevation 1120  
m. Village of Agli.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Mohamed Chakroun, INRAT, Forage Improvement Laboratory, Rue Hadi Karray, Ariana, Tunisia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States. Received 08/19/1994.

- PI 633833. *Festuca arundinacea*** Schreb.  
Wild. T062.CPG94; 136301; W6 16036. Collected 06/24/1994 in Tunisia.  
Latitude 37 deg. 11' 45'' N. Longitude 9 deg. 35' 38'' E. Elevation 5 m.  
Near Teskraia, 25.5 k west of Bizerte on Hw. C51. Grazed. Slope  
0-5%, aspect S. Open. Soil heavy cracking vertisols near salt lake, some  
salt on surface, pH 8.5-9.0. Rainfall 600 mm. Seasonally flooded,  
floodplain. Vegetation closed, seasonal tall grass. Surrounding veg.  
agri., dryland wheat. Population abundance frequent, distribution  
patchy. Growth habit erect.

The following were developed by Jan Dvorak, University of California - Davis, Dept. of Agronomy and Range Sci., Davis, California 95616, United States; Chao-Chien Jan, USDA, ARS, North Dakota State University, Northern Crop Science Laboratory, Fargo, North Dakota 58105, United States; Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; H.E. Vogt, University of California, Department of Plant Sciences, Davis, California 95616, United States; Patrick E. McGuire, University of California, Genetic Resources Conservation Program, Danr Support Building, Room 127, Davis, California 95616, United States; Khairy Soliman, Alabama A&M University, Department of Plant and Soil Science, P.O. Box 1208, Normal, Alabama 35762, United States. Received 08/12/2003.

**PI 633834. *Triticum aestivum* L. subsp. *aestivum***

Genetic. Pureline. UC66049; NSGC 9320. GS-154. Pedigree - Blue Aleurone Selection from Wheat Composite Cross I (2n=44)/Sonora 64. Released 1983. UC66049 is a 2n=42 recombinant line that has a blue aleurone gene on wheat chromosome 4B. The long arm of wheat chromosome 4B was replaced by translocation of the homoeologous chromosome of *Elytrigia pontica*. Blue aleurone contributed by *Elytrigia pontica* (*Agropyron elongatum*).

The following were donated by Indian Agricultural Research Institute, Ministry of Food and Agriculture, New Delhi, Delhi, India; Lisa Burke, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1170, United States. Received 08/20/2003.

**PI 633835. *Linum bienne* Mill.**

Wild. Separation from Q0408; Separation from Q0409; Separation from Q0414; Separation from T0012; Separation from PI 254371; Ames 27103.

The following were donated by C. Gundy, Long Ashton Research Station, Long Ashton, England B518 9AF, United Kingdom. Received 07/06/1939.

**PI 633836. *Malus yunnanensis* (Franch.) C. K. Schneid.**

Cultivated. GMAL 1819.

The following were donated by V.L. Vitkovskij, N.I. Vavilov Research Institute of Plant Industry, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 05/01/1987.

**PI 633837. *Malus brevipes* (Rehder) Rehder**

Cultivated. GMAL 2260. Accession not true, seeds discarded.

The following were developed by A. J. Bockholt, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States; F. Fojt III, Texas A&M University, Soil & Crop Sciences Dept., College Station, Texas 77843-2474, United States; K. Mayfield, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States. Donated by Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States. Received 08/04/2003.

**PI 633838. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx110. PL-312. Pedigree - (Tx61M/5\*Tx6252)-1-B-B-B. Southern U.S. adaptation, and combines well with subtropical or tropical white and non-Iowa Stiff Stalk Synthetic (non-BSSS) lines. Good seed-parent yields production, acceptable stalk quality, compact tassel, and shows good combining ability. Grain white, cob white, harder endosperm, and greater vigor. Ears long with 14-16 kernel rows. Kernels deep, dent, and white. Plants as tall as B73 with intermediate to high ear replacement. Susceptible to corn earworm (*Helicoverpa zea*) and southwestern corn borer (*Diatraea grandiosella*). Good pollen shedder and has good anthesis-silking synchronization. Combines well with non-Stiff Stalk lines (e.g. Tx130), and subtropical and tropical white lines (e.g.

CML373, CML379, CML343).

The following were developed by Lloyd W. Rooney, Texas A&M University, 17360 Coit Road, Dallas, Texas 75252, United States; A. J. Bockholt, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States; F. Fojt III, Texas A&M University, Soil & Crop Sciences Dept., College Station, Texas 77843-2474, United States; K. Mayfield, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; D. Pietsch, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States. Donated by Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States. Received 08/04/2003.

**PI 633839. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx114. PL-313. Pedigree - (K55/3\*B73)-1-B-B-B-B. B73 derivative with white grain, white cob, and Southern U.S. adaptation. Combines well with subtropical or tropical white and non-Iowa Stiff Stalk Synthetic (non-BSSS) lines. Similar characteristics to B73 such as good seed-parent, yields, acceptable stalk quality, and excellent combining ability. Harder endosperm, is more vigorous than B73. Flowers about 1 to 2 days later than B73 in College Station, TX. Ears have 16-18 rows and white cob. Kernels deep, dent and white. Plants tall with intermediate ear placement and have dark green leaves that are erect above the ear. Poor husk cover and is susceptible to corn earworm (*Helicoverpa zea*) and southwestern corn borer (*Diatraea grandiosella*). tassels erect, short, fragile, and have few branches. Intermediate pollen shedder with good anthesis-silking synchronization. Combines well with non-BSSS lines, and subtropical and tropical white lines such as CML78, CML343, CML373 and CML379. Hybrids are susceptible to preharvest.

The following were developed by A. J. Bockholt, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States; F. Fojt III, Texas A&M University, Soil & Crop Sciences Dept., College Station, Texas 77843-2474, United States; K. Mayfield, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; D. Pietsch, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States. Donated by Edward H. Coe, Jr., USDA, ARS, University of Missouri, Department of Agronomy, Columbia, Missouri 65211, United States. Received 01/29/1996.

**PI 633840. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx714; V978-2; V978-3; V978-1; Ames 22764. GP-371. Pedigree - ((K55/3\*B73)-B-B-B)/B73-1-B-B. B73 derivative with white cob and is adapted to the southern U.S. Combines well with non-Iowa Stiff Stalk Synthetic (non-BSSS) lines. Hybrids have good agronomic and quality traits with superior or competitive grain yields compared with standard commercial hybrids. Characteristics similar to B73, such as good seed-parent yields, stalk quality, small tassel, and good combining ability. White cob and has harder endosperm and greater vigor than B73. Flowers about 1 to 2 days later than B73 at College Station, TX. Ears

have 16-18 rows of light yellow and dent kernels. Plants tall with intermediate ear placement and dark green color. Adult plant leaves erect above the ear. Poor husk cover and is susceptible to corn earworm (*Helicoverpa zea*) and southwestern corn borer (*Diatraea grandiosella*). Tassels erect, short, fragile, and have few branches. Intermediate pollen shedder. Based on whole-grain analysis, averages about 13% protein, which is 15% higher than standard commercial.

The following were developed by A. J. Bockholt, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States; F. Fojt III, Texas A&M University, Soil & Crop Sciences Dept., College Station, Texas 77843-2474, United States; K. Mayfield, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States. Donated by Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States. Received 08/04/2003.

**PI 633841. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx732. GP-372. Pedigree - (TX6252/B73)-1-1-2-1-1-2-1-B-B. Yellow-grain line with Southern U.S. adaptation. Combines well with both non-Iowa Stiff Stalk Synthetic lines (non-BSSS) and tropical or subtropical lines. Flowers about 1 day earlier than B73 in College Station, TX. Ears have 14-16 kernel rows and white cobs. Kernels light yellow and dent. Plants shorter than B73 with intermediate ear placement and good stalk quality. Tassels small and erect. Intermediate pollen shedder, a good seed parent and has good anthesis-silking synchronization. Good general combining ability, particularly with non-BSSS lines and subtropical or tropical yellow lines. Combined well with (LH200/LH198), a BSSS tester, and CML285. Susceptible to corn earworm (*Helicoverpa zea*) and southwestern corn borer (*Diatraea grandiosella*). The response to aflatoxin accumulation of hybrids under inoculation with *Aspergillus flavus* has been variable.

The following were developed by A. J. Bockholt, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States; F. Fojt III, Texas A&M University, Soil & Crop Sciences Dept., College Station, Texas 77843-2474, United States. Donated by Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States. Received 08/04/2003.

**PI 633842. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx745. GP-373. Pedigree - P3165-1-8-1-1-1-B-B-B. Grain yellow, white cobs, Southern U.S. adaptation, and combines well with both Iowa Stiff Stalk Synthetic (BSSS) and non-BSSS lines. Flowers about the same time as B73 at College Station, TX, which is early compared with flowering times of other southern adapted lines. Ears have 14-16 rows of semident and light yellow kernels. Plants short with low ear placement and excellent stalk quality. Adult plant leaves erect above the ear and commonly show light yellow strips. Tassels small and erect. Intermediate seed parent and pollen shedder with good anthesis-silking synchronization. Susceptible to aflatoxin accumulation in grain.

Combines well with both BSSS and non-BSSS lines. Combined well with Tx714, Tx601Y, and Tx772 producing hybrids with grain yield comparable with commercial hybrids. Combines well with late tropical and subtropical yellow lines producing hybrids of intermediate maturities and short plant heights,.

The following were developed by A. J. Bockholt, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States; F. Fojt III, Texas A&M University, Soil & Crop Sciences Dept., College Station, Texas 77843-2474, United States; K. Mayfield, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States. Donated by Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States. Received 08/04/2003.

**PI 633843. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx770. GP-374. Pedigree - (Tx601/2\*Mol7)-1-2-1-1-1-1-1-B-B. Grain yellow, white cobs, Southern U.S. adaptation, and combines well with both Iowa Stiff Stalk Synthetic (BSSS) and tropical or subtropical lines. Good seed parent with excellent stalk quality. Flowers about 3 days later than Mol7 and 7 days earlier than Tx601Y in College Station, TX. Ears have 14-16 light yellow, semiflint kernel rows. Plants shorter than B73 with intermediate ear placement. Tassels erect and frequently have only one or two branches. Intermediate pollen shed and good anthesis-silking synchronization. Susceptible to common smut (*Ustilago maydis*), corn earworm (*Helicoverpa zea*) and southwestern corn borer (*Diatraea grandiosella*).

The following were developed by A. J. Bockholt, Texas A&M University, Soil and Crop Sciences Dept., College Station, Texas 77843-2474, United States; Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States; F. Fojt III, Texas A&M University, Soil & Crop Sciences Dept., College Station, Texas 77843-2474, United States; C.F. Llorente, O'Higgins, 1452 PB "A", 1426 Buenos Aires, Buenos Aires, Buenos Aires, Argentina. Donated by Javier Betran, Texas A&M University, Corn Breeding and Genetics, Department of Soil and Crop Sciences, College Station, Texas 77843-2474, United States. Received 08/04/2003.

**PI 633844. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Tx772. PL-314. Pedigree - (RR/2\*4521). An Argentine line suitable for use as a parent in hybrid combinations with Iowa Stiff Stalk Synthetic (BSSS) lines. Adapted to Southern U.S. growing areas. Has an intermediate maturity, flowering about 1 to 2 days later than B73 at College Station, TX. Ears thin with 14-16 kernel rows and white cobs. Kernels orange with a flint endopserm texture. Plants short with low ear placement and dark green color. Plant leaves commonly dark purple in V1-V5 vegetative stages. Adult plant leaves flat. Long husks that provide good ear coverage. Stands very well with low incidence of root and stalk lodging. Tassels long with few branches. Main tassel curved. Intermediate pollen shedder. Protein content of 14% crude protein, an increase of 25% compared with other inbreds such as B104. Resistant to

common rust (*Puccinia sorghi*) and susceptible to sugarcane borer (*Diatraea sacharalis*). Hybrids with BSSS lines have high yield potential and improved agronomic characteristics such as short plant type,.

The following were developed by Abbott & Cobb, Inc., United States. Received 09/10/2003.

**PI 633845 PVPO. *Cucumis melo* L.**  
Cultivar. "SLA-NS". PVP 200300298.

The following were developed by Cascade International Seed Co., Oregon, United States. Received 09/10/2003.

**PI 633846 PVPO. *Lolium perenne* L.**  
Cultivar. "WHISTLER". PVP 200300299.

The following were developed by Lebanon Seaboard Corporation, United States. Received 09/10/2003.

**PI 633847 PVPO. *Agrostis stolonifera* var. *palustris* (Huds.) Farw.**  
Cultivar. "INDEPENDENCE". PVP 200300300.

**PI 633848 PVPO. *Lolium perenne* L.**  
Cultivar. "CHARISMATIC". PVP 200300301.

The following were developed by The Scotts Company, United States. Received 09/10/2003.

**PI 633849 PVPO. *Festuca longifolia* Thuill.**  
Cultivar. "BERKSHIRE". PVP 200300302.

**PI 633850 PVPO. *Lolium perenne* L.**  
Cultivar. "PENTIUM". PVP 200300303.

The following were developed by Joseph H. Bouton, University of Georgia, Department of Crop & Soil Sciences, 3111 Plant Sciences Building, Athens, Georgia 30602-7272, United States; University of Georgia Research Foundation, Inc., Georgia, United States; AgResearch Limited, New Zealand. Received 09/10/2003.

**PI 633851. *Trifolium repens* L.**  
Cultivar. "PATRIOT"; GA-21159; GC89. PVP 200300304; CV-8. Pedigree - Selected from perennial grass pastures near Eatonton, GA. Ladino by intermediate type hybrid white clover intended for use as the legume component for high quality, grass based grazing systems in eastern U.S. Persistent, high yielding, densely spreading and profuse flowering cultivar.

**PI 633852. *Trifolium repens* L.**  
Cultivar. "DURANA"; GA-43; GC90. PVP 200300305; CV-7. Pedigree - Selected from perennial grass pastures near Eatonton, GA. Intermediate type white clover intended for use as a renovation legume for grass

pastures in southeastern USA. It is a persistent, low growing, densely spreading, and profuse flowering.

The following were developed by Syngenta Seeds, Inc., United States. Received 09/10/2003.

**PI 633853 PVPO. Phaseolus vulgaris L.**  
Cultivar. "SB4249". PVP 200300306.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 09/10/2003.

**PI 633854 PVPO. Poa pratensis L. subsp. pratensis**  
Cultivar. "ROYCE". PVP 200300308.

The following were developed by ProSeeds Marketing, Inc., United States. Received 09/10/2003.

**PI 633855 PVPO. Festuca rubra subsp. fallax (Thuill.) Nyman**  
Cultivar. "AMBROSE". PVP 200300309.

The following were developed by The Scotts Company, United States. Received 09/10/2003.

**PI 633856 PVPO. Festuca arundinacea Schreb.**  
Cultivar. "WAF". PVP 200300310.

The following were developed by Cebeco Zaden B.V., Rotterdam, South Holland, Netherlands. Received 09/10/2003.

**PI 633857 PVPO. Triticum aestivum L.**  
Cultivar. "Cebeco 1404". PVP 200300311.

The following were developed by D&PL Technology Holding Company, LLC, Netherlands. Received 09/10/2003.

**PI 633858 PVPO. Gossypium hirsutum L.**  
Cultivar. "DP 493". PVP 200300312.

The following were developed by New Mexico State University Agricultural Experiment Station, Las Cruces, New Mexico 88003, United States. Received 09/10/2003.

**PI 633859 PVPO. Allium cepa L.**  
Cultivar. "NuMex Camino". PVP 200300313.

The following were developed by Grassland West, United States. Received 09/10/2003.

**PI 633860 PVPO. *Dactylis glomerata* L.**  
Cultivar. "CROWN ROYALE". PVP 200300314.

The following were developed by William A. Meyer, Rutgers University, Plant Biology & Pathology Department, Foran Hall, 59 Dudley Road, New Brunswick, New Jersey 08903-0231, United States; Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 09/10/2003.

**PI 633861 PVPO. *Poa pratensis* L.**  
Cultivar. "DIVA". PVP 200300315.

The following were developed by Richard C. Frohberg, North Dakota State University, Crop & Weed Science Department, P.O. Box 5051, Fargo, North Dakota 58105-5051, United States; J.B. Rasmussen, North Dakota State University, Dept. of Plant Pathology, Fargo, North Dakota 58105, United States; James D. Miller, USDA-ARS, Dept. of Plant Pathology, North Dakota State University, Fargo, North Dakota, United States; Mohamed Mergoum, North Dakota State University, Plant Sciences Dept., Loftsgard Hall, Fargo, North Dakota 58105-5051, United States; T. Olsen, North Dakota State University, Dept. of Plnt Sciences, Fargo, North Dakota 58105, United States. Received 09/10/2003.

**PI 633862. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "DAPPS"; ND 724. PVP 200300316; CV-956. Pedigree - Kitt/Amidon//Grandin/Stoa sib. Released 2003. Hard red spring wheat. Combines good yield and high quality end-use in domestic and export wheat markets. Awned with middense, erect, and tempering heads. Culms white and peduncle slightly recurved. Awns white and glumes medium, white, elevated, and acuminate. Shoulder and beak medium width. Kernels rounded, hard, red, and oval; germ midsized; and brush medium. Plant height similar, in average to Keene, a NDSU HRSU cv. released in 1996 and Amidon, taller than Alsen (PI 615543) and shorter than Amidon. Similar to Grandin in heading date, later than Alsen and earlier than Keene. Resistant to grain shattering and straw strength is similar to Alsen. Mean grain yield over 32 locations/years in ND State trials and advanced yield nurseries similar to Parshall and Alsen but less than Reeder. Mean grain volume over 19 locations/year lower than Alsen and Parshall, but slightly higher than McNeal. Grain protein high compared to Alsen, Reeder and Parshall. Flour yield and water absorption.

The following were developed by Monsanto Company, 800 North Lindbergh Blvd., St. Louis, Missouri 63167, United States. Received 09/10/2003.

**PI 633863 PVPO. *Triticum aestivum* L.**  
Cultivar. "BURCHETT". PVP 200300317.

**PI 633864 PVPO. *Triticum aestivum* L.**  
Cultivar. "PRAIRIE WHITE". PVP 200300318.

**PI 633865 PVPO. *Triticum aestivum* L.**  
Cultivar. "BAKER'S WHITE". PVP 200300319.

The following were developed by Florida Agr. Exp. Sta., Florida, United

States. Received 09/10/2003.

**PI 633866 PVPO. *Arachis hypogaea* L.**  
Cultivar. "GP-1". PVP 200300321.

The following were developed by D&PL Technology Holding Corp., United States.  
Received 09/10/2003.

**PI 633867 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "DP 424 BGII/RR". PVP 200300322.

**PI 633868 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "DP 468 BGII/RR". PVP 200300323.

The following were developed by Busch Agricultural Resources, Inc., 3515 East  
County Road 52, Fort Collins, Colorado 80524, United States. Received  
09/10/2003.

**PI 633869 PVPO. *Hordeum vulgare* L.**  
Cultivar. "COLLINS". PVP 200300324.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449,  
Hubbard, Oregon 97032, United States. Received 09/10/2003.

**PI 633870 PVPO. *Poa trivialis* L.**  
Cultivar. "WINTERLINKS". PVP 200300325.

The following were developed by Pioneer Hi-Bred International, Inc, United  
States. Received 09/10/2003.

**PI 633871 PVPO. *Triticum aestivum* L.**  
Cultivar. "25W41". PVP 200300328.

**PI 633872 PVPO. *Triticum aestivum* L.**  
Cultivar. "25R54". PVP 200300329.

**PI 633873 PVPO. *Triticum aestivum* L.**  
Cultivar. "25R35". PVP 200300330.

**PI 633874 PVPO. *Triticum aestivum* L.**  
Cultivar. "26R15". PVP 200300331.

The following were developed by Pogue Agri Partners, Inc., United States.  
Received 09/10/2003.

**PI 633875 PVPO. *Cenchrus ciliaris* L.**  
Cultivar. "AN-17-PS"; H17; H1; PS712. PVP 200300332.

The following were developed by Roger H. Ratcliffe, USDA-ARS, Entomology  
Hall, Purdue University, West Lafayette, Indiana 47907, United States;  
Herbert W. Ohm, Purdue University, Department of Agronomy, 915 West State

Street, West Lafayette, Indiana 47907-2054, United States; Sue Cambron, USDA-ARS, Department of Entomology, Smith Hall, West Lafayette, Indiana 47907, United States; Fred L. Patterson, Purdue University, Agronomy Department, West Lafayette, Indiana 47907, United States; Christie Williams, USDA-ARS, Dept. of Entomology - Smith Hall, Purdue University, West Lafayette, Indiana 47907-2054, United States. Received 09/11/2003.

**PI 633876. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. P921696. GP-772. Pedigree - Cardinal\*3/3/Knox//CI 15329/CI 3984. Released 2003. Soft red winter wheat with gene H31, located on chromosome 5BS close to marker Xupw4148, that confers resistance to Hessian fly (*Mayetiola destructor*) biotype L. CI3984, the donor of H31, has one gene for resistance to Hessian fly biotype L, determined by segregation analysis of 63 backcross F2 families in which 32 families were segregating and 31 families were susceptible, fitting a 1 gene genetic model by X2 analysis. The Hessian fly resistance of CI3984 was highly effective against Hessian fly populations collected from Maryland, Delaware, South Carolina, and Georgia, as well as biotype D in laboratory tests. This is a progeny from an F6 plant that resulted from plant selection for resistance to Hessian fly biotype L during inbreeding following the backcross to Cardinal, a Hessian fly susceptible soft red winter wheat cultivar. Typically, 15-30 progeny seedlings from F2, F3, F4, and F6 plants were infested and placed in a controlled chamber at 19 deg. C, similar to.

The following were developed by Robert A. Graybosch, USDA-ARS, University of Nebraska, Dept. of Agronomy, 344 Keim Hall, Lincoln, Nebraska 68583, United States. Received 09/15/2003.

**PI 633877. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N98L20013-1; NSGC 9321. Pedigree - Chinese Spring/PI471075//Chinese Spring/3/Siouxland/4/TAM202/5/Siouxland. HMW glutenin proteins from *Triticum dicoccoides*.

**PI 633878. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N98L20120-17; NSGC 9322. Pedigree - Chinese Spring/PI471075//Chinese Spring/3/Siouxland/4/Siouxland/5/CO880210. HMW glutenin proteins from *Triticum dicoccoides*.

**PI 633879. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N98L20040-44; NSGC 9323. Pedigree - Chinese Spring/PI467024//Chinese Spring/3/Siouxland/4/TAM202/5/Siouxland.

**PI 633880. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N98L20101-49; NSGC 9324. Pedigree - Chinese Spring/PI471075//Chinese Spring/3/Siouxland/4/Siouxland/5/U1254(TAM2003\*/TA2460). HMW glutenin proteins from *Triticum dicoccoides*.

**PI 633881. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N98L20109-50; NSGC 9325. Pedigree - Chinese Spring/PI467024//Chinese Spring/3/Siouxland/4/91L20592/5/TAM202. HMW glutenin proteins from *Triticum dicoccoides*.

**PI 633882. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5003; NSGC 9326. Pedigree -

CO850034//T-57/5\*TAM107/3/(KS91H174/RBL/KS91HW29//VISTA). Possible source of resistance to WSMV.

**PI 633883. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5038; NSGC 9327. Pedigree - CO850034//T-57/5\*TAM107/3/(KS91H174/RBL/KS91HW29//VISTA). Possible source of resistance to WSMV.

**PI 633884. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5047; NSGC 9328. Pedigree - CO850034//T-57/5\*TAM107/3/(KS91H174/RBL/KS91HW29//VISTA). Possible source of resistance to WSMV.

**PI 633885. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5057; NSGC 9329. Pedigree - YUMA//T-57/3/LAMAR/4/4\*YUMA/5/(KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

**PI 633886. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5059; NSGC 9330. Pedigree - YUMA//T-57/3/LAMAR/4/4\*YUMA/5/(KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

**PI 633887. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5062; NSGC 9331. Pedigree - YUMA//T-57/3/LAMAR/4/4\*YUMA/5/(KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

**PI 633888. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5070; NSGC 9332. Pedigree - YUMA//T-57/3/LAMAR/4/4\*YUMA/5/(KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

**PI 633889. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5071; NSGC 9333. Pedigree - YUMA//T-57/3/LAMAR/4/4\*YUMA/5/(KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

**PI 633890. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5076; NSGC 9334. Pedigree - YUMA//T-57/3/LAMAR/4/4\*YUMA/5/(KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

**PI 633891. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5097; NSGC 9335. Pedigree - YUMA//T-57/3/LAMAR/4/4\*YUMA/5/(KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

**PI 633892. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5109; NSGC 9336. Pedigree - YUMA//T-57/3/CO850034/4/4\*YUMA/5/KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

**PI 633893. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5110; NSGC 9337. Pedigree - YUMA//T-57/3/CO850034/4/4\*YUMA/5/KS91H184/ARLIN S/KS91HW29//NE89526). Possible source of resistance to WSMV.

- PI 633894. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5114; NSGC 9338. Pedigree -  
YUMA//T-57/3/CO850034/4/4\*YUMA/5/KS91H184/ARLIN S/KS91HW29//NE89526).  
Possible source of resistance to WSMV.
- PI 633895. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5118; NSGC 9339. Pedigree -  
YUMA//T-57/3/CO850034/4/4\*YUMA/5/KS91H184/ARLIN S/KS91HW29//NE89526).  
Possible source of resistance to WSMV.
- PI 633896. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5154; NSGC 9340. Pedigree -  
MO8/REDLAND//KS91H184/3\*RIO BLANCO. Possible source of resistance to  
WSMV.
- PI 633897. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5162; NSGC 9341. Pedigree -  
MO8/REDLAND//KS91H184/3\*RIO BLANCO. Possible source of resistance to  
WSMV.
- PI 633898. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5163; NSGC 9342. Pedigree -  
MO8/REDLAND//KS91H184/3\*RIO BLANCO. Possible source of resistance to  
WSMV.
- PI 633899. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5173; NSGC 9343. Pedigree - MO8/NE94406  
(=NE86582//84MC29/NE82583)//KS91H184/3\*RIO BLANCO. Possible source of  
resistance to WSMV.
- PI 633900. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5187; NSGC 9344. Pedigree - MO8/NE94406  
(=NE86582//84MC29/NE82583)//KS91H184/3\*RIO BLANCO. Possible source of  
resistance to WSMV.
- PI 633901. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5191; NSGC 9345. Pedigree - MO8/NE94406  
(=NE86582//84MC29/NE82583)//KS91H184/3\*RIO BLANCO. Possible source of  
resistance to WSMV.
- PI 633902. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5195; NSGC 9346. Pedigree -  
MO8/REDLAND//KS91H184/3\*RIO BLANCO. Possible source of resistance to  
WSMV.
- PI 633903. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5202; NSGC 9347. Pedigree -  
MO8/REDLAND//KS91H184/3\*RIO BLANCO. Possible source of resistance to  
WSMV.
- PI 633904. *Triticum aestivum* L. subsp. *aestivum***  
Breeding. Pureline. N02Y5205; NSGC 9348. Pedigree -  
MO8/REDLAND//KS91H184/3\*RIO BLANCO. Possible source of resistance to  
WSMV.
- PI 633905. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. N02Y5213; NSGC 9349. Pedigree - MO8/REDLAND//KS91H184/3\*RIO BLANCO. Possible source of resistance to WSMV.

**PI 633906. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. NW97S142-1; NSGC 9350. Pedigree - KSSB-192-3/NE89529 . Hard white winter wheat.

**PI 633907. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. NW97S139-2; NSGC 9351. Pedigree - KSSB-192-3/NE89529 . Hard white winter wheat.

**PI 633908. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. NW99L7171; NSGC 9352. Pedigree - VH09553-753/N91L019//AP-WI89-163. Hard white winter wheat.

**PI 633909. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. NW99L7083; NSGC 9353. Pedigree - KS84HW1968\*RioBlanco/HBY762A//Halt. Hard white winter wheat.

**PI 633910. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "ANTELOPE"; NW97S278; NSGC 9354. CV-968. Pedigree - Pronghorn/Arlin. Hard white winter wheat.

**PI 633911. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "ARROWSMITH"; NW97S182; NSGC 9355. CV-969. Pedigree - KS87809-10/ARAPAHOE. Hard white winter wheat.

The following were developed by Florida Agr. Exp. Sta., Florida, United States. Received 09/24/2003.

**PI 633912 PVPO. *Arachis hypogaea* L.**

Cultivar. "AP-3". PVP 200300320.

The following were developed by Bean Cooperatives in Common, United States. Received 09/24/2003.

**PI 633913 PVPO. *Cicer arietinum* L.**

Cultivar. "SAN JOAQUIN". PVP 200300334.

**PI 633914 PVPO. *Cicer arietinum* L.**

Cultivar. "SUTTER". PVP 200300335.

The following were developed by CAL/WEST Seeds, California, United States. Received 09/24/2003.

**PI 633915 PVPO. *Carthamus tinctorius* L.**

Cultivar. "CW 2889". PVP 200300336.

The following were developed by Monsanto Company, 800 North Lindbergh Blvd., St. Louis, Missouri 63167, United States. Received 09/24/2003.

**PI 633916 PVPO. *Triticum aestivum* L.**

Cultivar. "NUHILLS". PVP 200300337.

The following were developed by Resource Seeds, Inc., United States. Received 09/24/2003.

**PI 633917 PVPO. X Triticosecale sp.**  
Cultivar. "1029S". PVP 200300339.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States; James Luby, University of Minnesota, Department of Horticultural Science, 342 Alderman Hall, St. Paul, Minnesota 55108, United States; Elizabeth E. Dickson, The University of Calgary, Herbarium, Dept. of Biological Sciences, 2500 University Drive NW, Calgary, Alberta T2N 1N4, Canada. Received 09/21/1995.

**PI 633918. Malus sieversii** (Ledeb.) M. Roem.  
Wild. Kaz 95 05-01P-22; GMAL 3781. Collected 08/29/1995 in Kazakhstan. Latitude 47 deg. 14' 39'' N. Longitude 81 deg. 34' 14'' E. Elevation 870 m. Semipalitinsk Region (Tarbagatai Mountain Range). Village of Alekseyevka. 4 km. Northeast of Alekseyevka, 20 km. North of Urdzhar. Flat area near stream. Collected in South end of West Valley. Coordinated in Urdzhar: 47-05-01, 81-37-49. Temp: max. +41, min. -40. Stoney gravelly loam soil. Good drainage. 400mm rainfall. Dominant tree sp.: Populus. Dominant shrub sp.: Crataegus, Rosa; Associated-Viburnum. Random pop. as close as 20 m. to stream. Many new small trees growing. Sampled 5 fruits from 1 tree.

The following were collected by Philip L. Forsline, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456-0462, United States. Received 09/19/1996.

**PI 633919. Malus sieversii** (Ledeb.) M. Roem.  
Wild. KAZ 96 05-05; GMAL 4028. Collected 09/05/1996 in Kazakhstan. Latitude 45 deg. 41' 1'' N. Longitude 81 deg. 51' 45'' E. Elevation 1190 m. Andreyevka District-Djungarsky Mt. range. 5 miles northwest of Konstantinova. Drainage good, Incline 10-40 degrees, Northwest, very open. Cultivation to southeast-forested ridge on Northwest, rainfall 700mm. Dominant tree sp: Malus, Betula, Populus. Dominant Shrub sp: Rosa. Sampled 50 fruits from 1 tree. Flesh flavor is subacid. Fruit size is larger than 50mm. Free of disease and insects. May be hybrid with cultivated nearby. Scion collected also.

**PI 633920. Malus sieversii** (Ledeb.) M. Roem.  
Wild. KAZ 96 09-05; GMAL 4056. Collected 09/15/1996 in Kazakhstan. Latitude 42 deg. 18' 58'' N. Longitude 70 deg. 22' 26'' E. Elevation 1025 m. Talasky, Alatau. Located in "reserve" Aksu Jabagli. Collected near river. Soil: fine, stoney. Incline 5%, north, open. Rainfall 320mm. Dominant tree sp: Malus; Assoc.-Prunus. Sampled 7 fruits from 1 tree. Over color is 70% red. Fruit size is larger than 50mm. Free of disease. Heavy codling moth. Collected by Slava, did not see tree. Strange orange/red color. Did not collect scion.

**PI 633921. Malus sieversii** (Ledeb.) M. Roem.

Wild. KAZ 96 09-05; GMAL 4056. Collected 09/15/1996 in Kazakhstan. Latitude 42 deg. 18' 58'' N. Longitude 70 deg. 22' 26'' E. Elevation 1025 m. Talasky, Alatau. Located in "reserve" Aksu Jabagli. Collected near river. Soil: fine, stoney. Incline 5%, north, open. Rainfall 320mm. Dominant tree sp: Malus; Assoc.-Prunus. Sampled 7 fruits from 1 tree. Over color is 70% red. Fruit size is larger than 50mm. Free of disease. Heavy codling moth. Collected by Slava, did not see tree. Strange orange/red color. Did not collect scion.

**PI 633922. Malus sieversii (Ledeb.) M. Roem.**

Wild. KAZ 96 01-01P-20; GMAL 4076. Collected 08/28/1996 in Kazakhstan. Latitude 43 deg. 17' 30'' N. Longitude 79 deg. 30' 50'' E. Elevation 1660 m. Ketmen Mts., Kirghiz sai. Southwest of Bol'shoje Aksu village. Heavily grazed area, no undergrowth. Elevation 1600-1660 meters. Soil: Gravely loam. Incline 10-20%, north, open-grazed. Rainfall 600-650mm. Dominant tree sp: Apricot, Crataegus; Assoc-Populus & Betula above 1660m. Dominant shrub sp: Sorbus, Berberis; Assoc-Lonicera. Sampled 8 fruits from 20 trees. Flesh flavor is acid. Moderate scab, striped. Apricots in area are early blooming, very good quality. Late maturing types.

**PI 633923. Malus sieversii (Ledeb.) M. Roem.**

Wild. KAZ 96 06-01P-28; GMAL 4211. Collected 09/06/1996 in Kazakhstan. Latitude 45 deg. 30' 47'' N. Longitude 80 deg. 43' 10'' E. Elevation 1250 m. 9km southeast of Lepsinsk, 3km southwest of Lepsinsk Forestry Camp. Sampled area down the bank, along the river and up the bank on the other side. Collected in site 15 area of 1995. Soil: Gravely loam, excellent drainage. N-S ridge, open. Dominant tree sp: Malus sieversii; Assoc-Populus, Crataegus. Dominant shrub sp: Rosa; Assoc-Rubus. Dominant herbaceous: Grasses; Assoc-Aster, Cirsium. Sampled 8 fruits from 30 trees. Flesh flavor is acid. Scab is light to moderate, spur-type. Same as site 15 in 1995. Excellent fruiting in 1996.

The following were developed by Fred Allen, University of Tennessee, Plant Science & Landscape Systems, 252 Ellington Hall, Knoxville, Tennessee 37901-1071, United States; Dennis R. West, University of Tennessee, Department of Plant and Soil Science, P.O. Box 1071, Knoxville, Tennessee 37996-4562, United States; D.R. Kincer, University of Tennessee, Dept. of Plant and Soil Sciences, Knoxville, Tennessee 37901-1071, United States; M.A. Thompson, University of Tennessee, Dept. of Plant Sciences, Knoxville, Tennessee 37996-4562, United States. Donated by Dennis R. West, University of Tennessee, Department of Plant and Soil Science, P.O. Box 1071, Knoxville, Tennessee 37996-4562, United States. Received 09/05/2003.

**PI 633924. Zea mays L. subsp. mays**

Breeding. Inbred. T272. PL-315. Pedigree - [A632/(T232/Mp339-S6)-S2]//A632-F2-2-1-1-1-1-1-1-1. Late maturing line in Tennessee, rated 1100 in the AES system. Heat units to pollen shed 1475, compared to 1400 for Mo17 in the 2001 nursery. Plant and ear height 1.9 and 0.9 m, compared to 1.8 and 0.7 m for Mo17. Has 5 to 7 leaves above the ear bearing node. Tassel small with a central spike and 3 to 5 lateral branches. Anthers yellow and green silks. Flower synchronization good with silks usually emerging one or two days after the onset of pollen shed. Plants produce a few sun-dried brace roots to the 2 d node above the crown. Produces a large, girthy ear with 14 to 16 rows of medium sized, hard, orange kernels on a red cob.

The following were donated by Miho Mihov, Institute for Wheat and Sunflower, "Dobroudja" 9520, General Toschevo, Tolbukhin 9520, Bulgaria. Received 02/27/1992.

- PI 633925. *Lens culinaris* Medik. subsp. *culinaris***  
Cultivated. SH 90-23; W6 10052. Pedigree - 1121 Chile/Dobroudja SS, F2 generation. Seeds were produced in the greenhouse.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/24/1992.

- PI 633926. *Lens culinaris* Medik. subsp. *culinaris***  
Cultivated. B92-114; No. 8; W6 10803. Collected 07/02/1992 in Russian Federation. Narodnaja.
- PI 633927. *Lens culinaris* Medik. subsp. *culinaris***  
Cultivated. B92-126; No. 23; W6 10810. Collected 07/02/1992 in Bulgaria. Borisovo-3. Location Uncertain - RW.
- PI 633928. *Lens culinaris* Medik. subsp. *culinaris***  
Cultivated. B92-127; No. 25; W6 10811. Collected 07/02/1992 in Bulgaria. Borisovo-5. Location Uncertain - RW.
- PI 633929. *Lens culinaris* Medik. subsp. *culinaris***  
Cultivated. B92-176; No. 179; W6 10859. Collected 07/02/1992 in Slovakia . Slovenska Krajova.
- PI 633930. *Lens culinaris* Medik. subsp. *culinaris***  
Cultivated. B92-189; No. 204; W6 10871. Collected 07/02/1992 in Razgrad, Bulgaria. Latitude 43 deg. 49' N. Longitude 26 deg. 44' E. Veseletz-7.

The following were collected by Max E. Patterson, Washington State University, Department of Horticulture and Landscape Architecture, Rm 149 Johnson Hall, Pullman, Washington 99164-6414, United States. Received 05/13/1996.

- PI 633931. *Lens culinaris* Medik. subsp. *culinaris***  
Cultivated. MP-9; W6 17944. Collected 05/07/1996 in Ankara, Turkey. Latitude 39 deg. 56' 10'' N. Longitude 32 deg. 51' 15'' E. Old City Market in town of Ankara. Small orange.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 03/1997.

- PI 633932. *Lens culinaris* Medik. subsp. *culinaris***  
Cultivated. W6 19546. Collected 09/1990 in Italy. Ravello, Italy most likely at a market place. Medium-sized line with yellow cotyledons.

The following were collected by Teresa Kotlinska, Research Institute of Vegetable Crops, Plant Genetic Resources Laboratory, Konstytucji 3 Maja 1/3, Skierniewice, Skierniewice 96-100, Poland; Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States; Stelios Samaras, Center of Macedonia & Thrace, Greek Gene Bank, Thessaloniki, Macedonia 570 01, Greece. Donated by Philipp W. Simon, USDA, ARS, Vegetable Crops Research Unit, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Received 09/09/1999.

**PI 633933. *Lens culinaris* Medik. subsp. *culinaris***

Cultivated. G075; GPS 143; W6 21688. Collected 08/1999 in Greece. Latitude 38 deg. 43' 50'' N. Longitude 20 deg. 38' 44'' E. Elevation 720 m. Englouvi village from Xanthi Kourti. Small-seeded "narrow", here 350+ years.

The following were donated by Edward J. Ryder, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 1981.

**PI 633934. *Beta vulgaris* L. subsp. *vulgaris***

IDBBNR 4383; NSL 141994; 043. A type O selection from the obsolete Klein E variety. Klein E is a high yielding multigerm German variety that was widely used in Europe during the 1930's and 40's.

**PI 633935. *Beta vulgaris* L. subsp. *vulgaris***

IDBBNR 4384; NSL 141995; 1502HO/NB1 (CMS). Cytoplasmic male sterile equivalent of NB1 inbred. Possesses resistance to bolting and curly top. Lit: J. S. McFarlane. New non-bolting and mildew-resistant seed releases. Am. Soc. Sugar Beet Technol. Proc. 8 (pt. 2): 88-89.

The following were donated by J. C. Theurer, Sugarbeet Investigations, Crops Res. Lab., Utah State Univ., Logan, Utah 84322, United States. Received 1983.

**PI 633936. *Beta vulgaris* L. subsp. *vulgaris***

IDBBNR 4466; NSL 183354; AT3993-7. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

**PI 633937. *Beta vulgaris* L. subsp. *vulgaris***

IDBBNR 5005; NSL 183359; AT3994-5.

**PI 633938. *Beta vulgaris* L. subsp. *vulgaris***

IDBBNR 5006; NSL 183360; AT3994-6.

**PI 633939. *Beta vulgaris* L. subsp. *vulgaris***

IDBBNR 5007; NSL 183361; AT3994-7.

**PI 633940. *Beta vulgaris* L. subsp. *vulgaris***

IDBBNR 5008; NSL 183362; AT3994-8. No further background info. available.

**PI 633941. *Beta vulgaris* L. subsp. *vulgaris***

IDBBNR 5009; NSL 183363; AT3994-9.

- PI 633942. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4470; NSL 183364; AT3988-A. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633943. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 5010; NSL 183365; 92 22LT. No further background info. available.
- PI 633944. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 5012; NSL 183368; 0199.
- PI 633945. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4485; NSL 183395; 782. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633946. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 5030; NSL 183401; 867-1 (22.101A).
- PI 633947. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4490; NSL 183421; 3090. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633948. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 5047; NSL 183422; 3500-12.
- PI 633949. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4491; NSL 183424; 3505-9. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633950. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4497; NSL 183430; 3536. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633951. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4498; NSL 183431; 3537. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633952. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4501; NSL 183434; 3568. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633953. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4504; NSL 183437; 3577. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633954. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4507; NSL 183440; 3621. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633955. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4509; NSL 183442; 3624. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.
- PI 633956. *Beta vulgaris* L. subsp. *vulgaris***  
IDBBNR 4520; NSL 183456; 7401. Crops Res. Lab, UT St. Univ., Logan, UT 84322 No further background information available.

- PI 633957. *Beta vulgaris* L. subsp. *vulgaris***  
 IDBBNR 4521; NSL 183457; 7402. Crops Res. Lab, UT St. Univ., Logan, UT  
 84322 No further background information available.
- PI 633958. *Beta vulgaris* L. subsp. *vulgaris***  
 IDBBNR 5052; NSL 183460; 7408.
- PI 633959. *Beta vulgaris* L. subsp. *vulgaris***  
 IDBBNR 5053; NSL 183462; 7507.
- PI 633960. *Beta vulgaris* L. subsp. *vulgaris***  
 IDBBNR 5056; NSL 183469; 9046A-8.
- PI 633961. *Beta vulgaris* L. subsp. *vulgaris***  
 IDBBNR 5058; NSL 183476; 9502.

The following were donated by Richard Yu, USDA, ARS, Sugarbeet Production Research, 1639 Alisal St., Salinas, California 93905, United States. Received 1985.

- PI 633962. *Beta vulgaris* L. subsp. *vulgaris***  
 IDBBNR 5097; NSL 195505; EL40 BREEDING LINE 15 & 27. A leafspot-blk root resist., self-ster., from 02 clone thru 3 gener. of selection. The 1st 2 select. cycles were primar. for incrsd leaf spot resist. & lg root size in competition. The 3rd cyc. of select. was for leafspot resist. in Ohio from lns w/high yld & qlty perfor. in Michigan. Roots were selected for size in competition and shape. Breeders' Seed No. 70P23.

The following were donated by International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 08/29/2000.

- PI 633963. *Ipomoea batatas* (L.) Lam. var. *batatas***  
 Cultivar. "CN 1424-9"; CIP 440245; Q 42712. .
- PI 633964. *Ipomoea batatas* (L.) Lam. var. *batatas***  
 Cultivar. "AVRDC-CN 1732-4"; 440370; Q 43529.
- PI 633965. *Ipomoea batatas* (L.) Lam. var. *batatas***  
 Cultivar. "Kyukei No. 63"; 440188; Q 43530.
- PI 633966. *Ipomoea batatas* (L.) Lam. var. *batatas***  
 Cultivar. "Wagabolige"; Q 43533.
- PI 633967. *Ipomoea batatas* (L.) Lam. var. *batatas***  
 Cultivar. "Capadito"; CIP 420053; Q 43782.
- PI 633968. *Ipomoea batatas* (L.) Lam. var. *batatas***  
 Cultivar. "Morado Maravi"; CIP 400002; Q 43784.

The following were developed by A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States; Mark J. Sellmann, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 09/25/2003.

**PI 633969. *Festuca arundinacea* Schreb.**

Cultivar. "QUEST". CV-93. Pedigree - Developed from the maternal progenies of 15 lines. Germplasm sources contributing are 33% Simplot experimentals, 33% Pixie, 7% Alamo, 7% Brandy, 7% Arid, 7% Coronado, 3% Normarc 99 and 3% Monarch. Turf-type tall fescue. Morphological measurements taken in Rathdrum, ID. Heading date ranged from May 20 to June 8. Culm to flagleaf collar measurement was from 40.25 to 48.08 cm. Flagleaf sheath length ranged from 17.28 to 20.78 cm. Plant height ranged from 72.73 to 90.22 cm. Flagleaf width ranges from 4.09 to 4.19 cm. Flagleaf length extends from 9.72 to 10.38 cm. Panicle length ranges from 13.86 to 17.30 cm. Seed length ranges from 6.38 to 5.77 mm and seed width ranges from 1.34 to 1.42 mm. One thousand-seed weight ranges from 1.348 to 2.783 g. Most similar to Brandy and Pixie. However, has a narrower flagleaf width than Brandy. Shorter flagleaf sheath length and shorter panicle than Pixie.

The following were developed by Robert D. Riggs, University of Arkansas, Department of Plant Pathology, 217 Plant Science Building, Fayetteville, Arkansas 72701, United States; John Rupe, University of Arkansas, Department of Plant Pathology, PTSC 217, Fayetteville, Arkansas 72701, United States; Clay H. Sneller, Ohio State University, O.A.R.D.C., 1680 Madison Avenue, Wooster, Ohio 44691, United States; Pengyin Chen, University of Arkansas, Department of Crop, Soil & Environmental Sciences, Soybean Breeding and Genetics, Fayetteville, Arkansas 72701, United States. Received 09/24/2003.

**PI 633970. *Glycine max* (L.) Merr.**

Cultivar. Pureline. "OZARK". PVP 200400095; CV-468. Pedigree - Holladay x Delta Pine DP 415. Early Maturity Group V (relative maturity 5.2) determinate cv. maturing 3 to 5 days earlier than Hutcheson and 3 to 5 days later than Manokin. Flowers purple, gray pubescence, and tan pod walls. Mature plants average 10-15 cm taller than Manokin and Hutcheson, respectively. Seeds have yellow cotyledons with dull yellow seed coats and buff hila, and average about 1.5 mg heavier than seeds of Manokin and Hutcheson. Lodging, shattering, and average seed quality scores similar to Manokin and Hutcheson. Seed protein and oil content are also similar to Manokin and Hutcheson. Resistant to southern stem canker, soybean mosaic virus, and frogeye leaf spot. Moderately resistant to root knot nematode and sudden death syndrome.

The following were developed by Steven E. Ullrich, Washington State University, Department of Crop & Soil Sciences, Pullman, Washington 99164-6420, United States; Vadim Jitkov, Washington State University, Dept. of Crop & Soil Sciences, Pullman, Washington 99164-6420, United States; Berne L. Jones, USDA, ARS, Cereal Crops Research Unit, 501 North Walnut Street, Madison, Wisconsin 53705-2334, United States; Patrick E. Reisenauer, Washington State University, Crop & Soil Department, Ag. Research Tech., Pullman, Washington 99164-6420, United States; J.W. Burns, Washington State University, Dept. of Crop and Soil Sciences, Pullman, Washington 99164-6420, United States; Xianming Chen, USDA-ARS, Washington State University, 361 Johnson Hall, Pullman, Washington 99164-6430, United States; Diter von Wettstein, Washington State University, Dept. of Crop and Soil Sciences, P.O. Box 646420, Pullman, Washington 99164-6420, United States; J.S. Cochran, Washington State University, Dept. of Crop & Soil Science, Pullman, Washington 99164-6420, United States; C.G. Kannangara, Washington State University, Dept. of Crop & Soil Science, Pullman, Washington 99164-6420,

United States. Received 09/29/2003.

**PI 633971. *Hordeum vulgare* L. subsp. *vulgare***

Cultivar. Pureline. "RADIANT"; 98NZ223. PVP 200300348; CV-311. Pedigree - (Induced mutant in Harrington) ant29-667 / Baronesse. Released 2003. Proanthocyanidin-free two-rowed spring feed and potentially malting barley. The lack of proanthocyanidins is a brewing quality trait, which eliminates permanent and chill haze formation in beer. A lack of proanthocyanidins may also improve barley as livestock feed (digestibility) and human food (white color retention). Well adapted to Pacific Northwest growing conditions essentially equally the leading Washington cultivar, Baronesse in yield based on state and regional tests conducted 2000-2002. Similar to Baronesse in pest resistances and other agronomic traits, except that it heads 2-5 d later. Micro-malting data indicate a quality profile similar to Harrington. Particularly high malt extract and low beta-glucan contents. American Malting Barley Association tests are underway to evaluate potential as a malting barley.

The following were developed by Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States. Received 09/23/2003.

**PI 633972. *Oryza sativa* L.**

Cultivar. Pureline. "CALA"; RU 0003006. Pedigree - (PI 561734) Cypress / Pelde (96:3949)//(PI 593892) Jefferson. Long-grain cv. with average plant height of 95 cm and heading date of 84 days. All plant parts are glabrous. Grain amylase content approx. 10% and the alkali spreading value is 2, indicating a high gelatinization class. Possesses Pi-z and Pi-k(h) resistance genes to *Pyricularia grisea*.

**PI 633973. *Oryza sativa* L.**

Cultivar. Pureline. "HIDALGO"; RU 0003009. PVP 200500051. Pedigree - (PI 561734) Cypress / Pelde (96:3944)//(PI 593892) Jefferson. Long-grain cv. with average plant height of 95 cm and heading date of 83 days. All plant parts glabrous. Lemma, palea, and apiculus straw colored at maturity. Grain amylose content approx. 12% and the alkali spreading value is 2, indicating a high gelatinization class. Possesses the pi-k(h) resistance for *Pyricularia grisea*.

The following were developed by Luther Talbert, Montana State University, Plant Sciences & Plant Pathology, Bozeman, Montana 59717, United States; Greg D. Kushnak, Montana State University, Western Triangle Agric. Research Center, P.O. Box 1474, Conrad, Montana 59425, United States; G.R. Carlson, Montana State University, Northern Agric. Research Center, Star Rt. 36, Havre, Montana 59501, United States; Joyce L. Eckhoff, Montana State University, Eastern Agric. Research Center, 1501 N. Central Avenue, Sidney, Montana 59270, United States; D.W. Wichman, Montana State University, Central Agric. Research Center, Moccasin, Montana 59462, United States; Susan P. Lanning, Montana State University, Dept. of Plant, Soil, & Env. Sciences, Bozeman, Montana 59717, United States; Robert N. Stougaard, Montana State University, Northwestern Agric. Research Center, 4570 MT Hwy 35, Kalispell, Montana 59901, United States; Ken Kephart, Montana State University, MSU Southern Ag. Research Center, 748 Railroad Highway, Huntley, Montana 59037, United States; W.E. Grey, Montana State University, Bozeman, Montana 59717, United States; D. Nash, Montana State University, Montana, United States.

Received 09/24/2003.

**PI 633974. *Triticum aestivum* L. subsp. *aestivum***

Cultivar. Pureline. "CHOTEAU"; MT 9929. CV-955; PVP 200400035. Pedigree - MT 8603 / Amidon (PI 527682) // MT 7810 / MT7926. Released 2003. Hard red spring wheat with solid stem. Solid stems confer resistance to the wheat stem sawfly. Originally evaluated in a preliminary yield nursery at four Montana locations in 1999, and has been tested yearly at nine or ten Montana locations since 2000. Mean grain yield over 28 location/years 4414 kg ha<sup>-1</sup>, compared to 4450 kg ha<sup>-1</sup> for McNeal and 3732 kg ha<sup>-1</sup> for Fortuna. McNeal is a hollow-stemmed wheat and has been the most widely grown cv. in Montana since 1996. Mean grain volume 775 kg m<sup>-3</sup>, compared to 768 kg m<sup>-3</sup> for McNeal and 773 kg m<sup>-3</sup> for Fortuna. Mean heading date was June 23, compared to June 26 for McNeal, and June 24 for Fortuna. Height average 28.5 cm, while McNeal and Fortuna averaged 30.5 cm respectively. Observation of segregation patterns indicate has the Rht2 gene for semidwarf habit, as does McNeal.

The following were developed by Resource Seeds, Inc., United States. Received 09/24/2003.

**PI 633975 PVPO. X *Triticosecale* sp.**

Cultivar. "346". PVP 200300338.

The following were developed by Richard C. Frohberg, North Dakota State University, Crop & Weed Science Department, P.O. Box 5051, Fargo, North Dakota 58105-5051, United States; R.W. Stack, North Dakota State University, Plant Pathology Department, Fargo, North Dakota 58105, United States; Mohamed Mergoum, North Dakota State University, Plant Sciences Dept., Loftsgard Hall, Fargo, North Dakota 58105-5051, United States. Received 10/15/2003.

**PI 633976. *Triticum aestivum* L. subsp. *aestivum***

Breeding. Pureline. ND 2710. GP-771. Pedigree - Sumai3/Wheaton//Grandin. Released 1998. Resistant to *Fusarium* head blight (*F. graminearum*) and other *Fusarium* species and shows reduced production of deoxynivalenol in grain. Awned, conventional height hard red spring wheat with early maturity, similar to Grandin, and is day length insensitive. Lax head type and relatively susceptible to shattering. Susceptible to lodging with an average grain yield in field trials lower than Grandin. Grain quality slightly lower in protein than Grandin but milling and dough mixing characteristics satisfactory. Resistant to the races of stem rust (*Puccinia graminis*) prevalent in the region, and moderately resistant to leaf rust (*Puccinia triticina*).

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/11/2003.

**PI 633977. *Trifolium campestre* Schreb.**

Uncertain. TKM04-028. Collected 05/28/2002 in Turkmenistan. Latitude 38 deg. 25' 31'' N. Longitude 56 deg. 41' 13'' E. Elevation 664 m. Site No. 4.

**PI 633978. *Trifolium campestre* Schreb.**

Uncertain. TKM11-062. Collected 05/29/2002 in Turkmenistan. Latitude 38 deg. 24' 43'' N. Longitude 56 deg. 29' 38'' E. Elevation 477 m. Site No. 11.

**PI 633979. *Trifolium campestre* Schreb.**

Uncertain. TKM33-236. Collected 06/03/2002 in Turkmenistan. Latitude 38 deg. 29' 25'' N. Longitude 56 deg. 6' 59'' E. Elevation 438 m. Site No. 33.

**PI 633980. *Trifolium campestre* Schreb.**

Uncertain. TKM37-318. Collected 06/05/2002 in Turkmenistan. Latitude 38 deg. 29' 25'' N. Longitude 56 deg. 6' 59'' E. Elevation 934 m. Site No. 37.

The following were developed by Joseph M. Nyachiro, Alberta Agriculture, Food & Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada. Received 10/07/2003.

**PI 633981. *Hordeum vulgare* L. subsp. *vulgare***

Cultivar. Pureline. "MANNY"; BT562; H90013004Z. CV-314. Pedigree - BT 538 / BT 636. Released 2003. Hulled, six-rowed, rough-awned and standard height feed barley. Semi-compact spikes, short in length and semi-erect to horizontal attitude. Auricles white. Aleurone yellow, with mid-long rachilla with short hair. Good straw strength and good lodging resistance for a normal height barley variety. Multiple gene resistance to scald and covered smut. High grain yield and silage potential. Shows field resistance to net blotch and spot blotch, intermediate root rot resistance, better FHB tolerance and better % plump seed compared to six row check varieties such as AC Lacombe. Yields more grain and silage compared with check varieties such as AC Lacombe. Compared to other barley check varieties, could have better water use efficiency.

The following were developed by Patricia E. Juskiw, Alberta Agriculture, Field Crop Development Centre, 5030-50 St., Lacombe, Alberta T4L 1W8, Canada. Received 10/07/2003.

**PI 633982. *Hordeum vulgare* L. subsp. *vulgare***

Cultivar. Pureline. "PONOKA"; TRO1656; H93003006Z. CV-313. Pedigree - H92001F(1)/TR229 = Harrington/Camelot//TR229. Two-rowed, spring feed barley. Mean grain yield over 31 sites of 4.72 t ha<sup>-1</sup>, higher than mean grain yield of 4.37 t ha<sup>-1</sup> for CDC Dolly. Reaches maturity in approx. 95 d, three days later than CDC Dolly. Taller at 67 cm than CDC Dolly at 64 cm (32 sites), but has a better lodging score (scale 0-9) of 4.7 compared to 6.8 for CDC Dolly (only 2 sites). Same test weight at 66 kg hL<sup>-1</sup> as CDC Dolly (31 sites), but kernel weight only 46 mg (31 sites) and percent plump only 87% (18 sites) versus 47 mg and 93% for CDC Dolly. Resistant to the surface-borne smuts (*Ustilago* spp.) and true loose smut (*U. nuda*). Moderately susceptible to the spot form of net blotch (*Pyrenophora teres* forma *maculata*) but moderately resistant to the net form (*P. teres* forma *teres*). Moderately susceptible seedling reaction to scald (*Rhynchosporium secali*) but as an adult plant, reactions range from resistant to moderately susceptible depending upon races of scald giving an overall moderately resistant rating for.

The following were developed by Dennis Thomas, University of Illinois, Department of Agronomy, 1102 S. Goodwin Avenue, Urbana, Illinois 61801, United States; Cecil D. Nickell, University of Illinois, Department of Crop Science, 1102 S. Goodwin Av., Urbana, Illinois 61801, United States; T.R. Cary, University of Illinois, Illinois Agr. Exp. Sta., Dept. of Agronomy, Urbana, Illinois 61801, United States; Brian W. Diers, University of Illinois, Dept. of Crop Science, 1102 S. Goodwin Ave., Urbana, Illinois 61801, United States. Received 10/28/2003.

**PI 633983. *Glycine max* (L.) Merr.**

Breeding. Pureline. LN97-15076; SY 319001. CV-465. Pedigree - F4 plant selection of 'Macon' X 'Stressland'. LN97-15076 was released for use by breeders as a parent because of its higher yield when compared with cultivars of similar maturity. It is an indeterminate line classified as having a mid group IV maturity (relative maturity 4.3). In the uniform test, LN97-15076 had 7% greater seed yield (3474 kg ha<sup>-1</sup> vs. 3245 kg ha<sup>-1</sup>) and was three days later in maturity than Macon across 30 environments. Compared to Macon, LN97-15076 was 13 cm taller with a similar lodging score across 32 environments, and was 10 g kg<sup>-1</sup> greater in seed protein (412 vs. 402 g kg<sup>-1</sup>) and 5 g kg<sup>-1</sup> less in seed oil (206 vs. 211 g kg<sup>-1</sup>) concentration across 9 locations. Compared with HS93-4118 (St. Martin et al., 2001) at the same locations, LN97-15076 was 1% greater in seed yield, 13 cm taller, similar in lodging score, 2 days later in maturity, 11 g kg<sup>-1</sup> greater in seed protein and 4 g kg<sup>-1</sup> greater in seed oil concentration. LN97-15076 has white flowers, tawny pubescence, brown pod color at maturity, and dull.

The following were donated by International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/20/1995.

**PI 633984. *Ipomoea batatas* (L.) Lam. var. batatas**

Cultivar. "IITA-TIS 83/1038"; CIP 440102; 4876 USA; TIS 83/1038; BE-4775; Q 35661. .

**PI 633985. *Ipomoea batatas* (L.) Lam. var. batatas**

Cultivar. "WT-57"; Q 37459. .

**PI 633986. *Ipomoea batatas* (L.) Lam. var. batatas**

Cultivar. "WT-59"; Q 37460. .

**PI 633987. *Ipomoea batatas* (L.) Lam. var. batatas**

Cultivar. "WT-108"; Q 37461. .

**PI 633988. *Ipomoea batatas* (L.) Lam. var. batatas**

Cultivar. "UNKNOWN"; CIP 420023; Q 37481. .

**PI 633989. *Ipomoea batatas* (L.) Lam. var. batatas**

Cultivar. "Cascajo Morado"; CIP 420031; Q 43783.

The following were developed by M. T. Moreno, Instituto Nacional de Investigaciones Ag, CIRDA 10 Apdo 240, Cordoba, Cordoba, Spain; Salvador Nadal, CIFA, DGIFAP.J.A, Avda. Menendez Pidal s/n, 14071 Cordoba, Spain; J.I. Cubero, Universidad de Cordoba, Depto. de Genetica, E.T.S.I.A.M., Cordoba, Spain. Received 11/03/2003.

**PI 633990 QUAR. *Vicia faba* L.**

Cultivar. "BARACA". CV-225. Pedigree - VF1071 (resistant line from Egyptian origin) / Alameda. High degree of genetic resistance to Broomrape (*Orobanche crenata*) making available sowing in many areas where the broomrape is the major crop problem.

The following were developed by Ronald D. Barnett, University of Florida, North Florida Res. & Ed. Center, 155 Research Road, Quincy, Florida 32351-5677, United States. Received 11/06/2003.

**PI 633991. *Avena sativa* L.**

Cultivar. Pureline. "HORIZON 474"; FLX474-1-B2-8-W1; FL88 Coker D-54-W1; FLX474. PVP 200400028. Pedigree - Coker 85-18//Coker 78-28/Coker 79-26. Considerable potential for both grain and forage production in the Southeast. First included in a yield evaluation at Quincy, Florida in 1996 in a Preliminary Oat Nursery where performed very well giving a higher grain yield than two of the three check varieties. In 1997 was included in the Advanced Oat Nursery where again performed better than two of the three checks. Excellent test weight, early maturity, and good crown rust resistance readily apparent. Included in the Elite Oat Nursery in 1998, 1999, 2000, and 2001 where performed well for grain yield each year and continued to show excellent test weight, early maturity, and excellent crown rust resistance. In 2001, was included in the USDA Regional Winter Oat Performance Nursery in which was higher yielding than three of the five checks included in the nursery. Stable and uniform through the multiplication process, an occasional off type plant that is taller may occur but at a frequency of less than 0.1%.

The following were developed by John P. Jones, University of Arkansas, Arkansas Agric. Exp. Station, Fayetteville, Arkansas, United States. Received 11/13/2003.

**PI 633992 PVPO. *Gossypium hirsutum* L.**

Cultivar. "JAJ0 8185". PVP 200300340.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 11/13/2003.

**PI 633993 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "LH306". PVP 200300344.

**PI 633994 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "LH311". PVP 200300345.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 11/13/2003.

**PI 633995 PVPO. *Brassica oleracea* var. *botrytis* L.**

Cultivar. "BRM 51-1046". PVP 200300349.

The following were developed by Resource Seeds, Inc., United States. Received

11/13/2003.

**PI 633996 PVPO. X Triticosecale sp.**  
Cultivar. "314". PVP 200400001.

The following were developed by Hollar Seeds, Incorporated, Rocky Ford, Colorado, United States. Received 11/13/2003.

**PI 633997 PVPO. Cucurbita maxima** Duchesne  
Cultivar. "FULL MOON". PVP 200400004.

The following were developed by Shamrock Seed Co., Inc., California, United States. Received 11/13/2003.

**PI 633998 PVPO. Lactuca sativa** L.  
Cultivar. "BERETTA". PVP 200400010.

**PI 633999 PVPO. Lactuca sativa** L.  
Cultivar. "COLOSSUS". PVP 200400011.

The following were developed by Sakata Seed Corporation, Japan. Received 11/13/2003.

**PI 634000 PVPO. Brassica rapa subsp. campestris** (L.) A. R. Clapham  
Cultivar. "DEEP PURPLE". PVP 200400012.

The following were developed by Monsanto Technology LLC, United States. Received 11/13/2003.

**PI 634001 PVPO. Zea mays** L. **subsp. mays**  
Cultivar. "I161538". PVP 200400016.

**PI 634002 PVPO. Zea mays** L. **subsp. mays**  
Cultivar. "I180421". PVP 200400017.

**PI 634003 PVPO. Zea mays** L. **subsp. mays**  
Cultivar. "I322683". PVP 200400019.

The following were developed by The J.C. Robinson Seed Company, Waterloo, Nebraska, United States. Received 11/13/2003.

**PI 634004 PVPO. Zea mays** L. **subsp. mays**  
Cultivar. "W69079". PVP 200300254.

The following were developed by John P. Jones, University of Arkansas, Arkansas Agric. Exp. Station, Fayetteville, Arkansas, United States. Received 11/13/2003.

**PI 634005 PVPO. Gossypium hirsutum** L.  
Cultivar. "JAJ0 8098". PVP 200300341.

**PI 634006 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "JAJ0 8190". PVP 200300342.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 11/13/2003.

**PI 634007 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "LH268". PVP 200300343.

**PI 634008 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "LH351". PVP 200300346.

**PI 634009 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "LH323". PVP 200300347.

The following were developed by Resource Seeds, Inc., United States. Received 11/13/2003.

**PI 634010 PVPO. X *Triticosecale* sp.**  
Cultivar. "96". PVP 200400002.

**PI 634011 PVPO. *Triticum aestivum* L.**  
Cultivar. "STELLAR". PVP 200400003.

The following were developed by Robert K. Bacon, University of Arkansas, Dept. of Crop, Soil, and Env. Science, 115 Plant Science Bldg., Fayetteville, Arkansas 72701, United States; University of Arkansas, Arkansas Agr. Exp. Sta., Fayetteville, Arkansas 72701, United States. Received 11/13/2003.

**PI 634012. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "AR 839"; AR839-25-8-2. PVP 200400013; CV-972.  
Pedigree - Terral 101/Pioneer 2548. Good winter hardiness and good straw strength. Resistant to Wheat soilborne mosaic virus (SBWMV), Wheat spindle streak mosaic virus (WSSMV) and stripe rust (*Puccinia striiformis*); moderately resistant to leaf rust (*Puccinia triticina*); moderately susceptible to Septoria leaf blotch (*Septoria tritici*). Has excellent soft wheat milling and baking characteristics. Is a sib line to Pat and is similar in appearance. Is 2 to 3 days earlier than Pat in Arkansas. At maturity, has spikes which are awned, mid-dense, fusiform and nodding at maturity. White glumes are glabrous, midlong and midwide with narrow, oblique shoulders and medium, acute beaks. Kernels are red, short to midlong and ovate, with a small germ; the kernel brush is midsized and midlong; the kernel crease is narrow in width and is mid-deep with rounded cheeks. Kernels on average are 6.1 mm long and 2.9 mm wide with kernel weight of 28 mg.

The following were developed by Monsanto Technology LLC, United States. Received 11/13/2003.

**PI 634013 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "I130247". PVP 200400014.

**PI 634014 PVPO. *Zea mays* L. subsp. *mays***

Cultivar. "I156024". PVP 200400015.

**PI 634015 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "I294213". PVP 200400018.

The following were developed by New Zealand Institute for Crop & Food Research Limited, New Zealand. Received 11/13/2003.

**PI 634016 PVPO. *Avena sativa* L.**  
Cultivar. "114". PVP 200400020.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 11/13/2003.

**PI 634017 PVPO. *Lolium perenne* L.**  
Cultivar. "SALINAS". PVP 200400024.

The following were developed by Lee Panella, USDA, ARS, Sugarbeet Research Unit, Natl. Ctr. for Genetic Resources Pres., Fort Collins, Colorado 80521-4500, United States. Received 11/13/2003.

**PI 634018. *Beta vulgaris* L.**  
Breeding. FC201; 01-FC1014; 2003A033. GP-246. Pedigree - C890aa x FC708 (23 F1 plants) bulked with C859aa x FC708 (18 F1 plants). Segregating population of sugarbeet with a high frequency of the Rz allele conferring resistance to Rhizomania (beet necrotic yellow vein virus). Segregates for resistance to root-rotting strains (AG-2-2) of *Rhizoctonia solani* and to the sugar beet root aphid (*Pemphigus* sp.), has moderate resistance to cercospora leaf spot (*Cercospora beticola*), to black root (*Aphanomyces cochlioides*), and the Beet curly top virus. Heterogeneous population from which to select disease resistant monogerm, O-type parents to infuse multiple disease resistance on the female side of hybrids. No CMS equivalent. O-type germplasm with 94% red hypocotyl (68 plants counted) color (R) and 90% monogerm seed (mm).

The following were developed by Herman Gorz, University of Nebraska, Department of Agronomy, 362 Plant Science, East Campus, Lincoln, Nebraska 68583-0937, United States. Received 11/05/2003.

**PI 634019. *Melilotus officinalis* (L.) Lam.**  
Breeding. N56. GS-50. Pedigree - N27 (a large-seeded, high-coumarin, early-maturing *M. officinalis*) / N-1 (a finestem, small-seeded, low-coumarin, late-maturing *M. alba*) with one backcross of finestem, low-coumarin F2 segregates to N27 followed by a second backcross to N29 (a low-coumarin strain). The finestem trait is conditioned by a homozygous recessive gene that gives rise to a hay-type sweetclover in which fineness of stem and leafiness are very pronounced. It is found in a strain of *Melilotus alba* but not in *M. officinalis* which is the predominant species grown in the Great Plains. The finestem gene was transferred from *M. alba* to *M. officinalis* by making an interspecific cross using *M. officinalis* lines as the female parent that were derived from the large-seeded introduction PI 178985. Although this line was derived after two additional backcrosses to *M. officinalis* and is

homozygous for the finestem trait and low coumarin content, it does not have the large seed size of the *M. officinalis* parent and seed abortion resulting from the interspecific cross is still a problem in many plants. Therefore, some additional backcrosses to superior large-seeded *M. officinalis* lines are needed followed by selection for finestem, low coumarin content, large seed size and.

The following were developed by Pan XingLai, Cotton Research Institute, SXASA, Yuncheng, Shanxi 044000, China. Received 11/03/2003.

**PI 634020 QUAR. *Triticum aestivum* L.**

Cultivar. "JINMAI 50"; YunFengZao 3. CV-978. Pedigree - Pingyang 181/Qingfeng1. Originally tested in the Southern Shanxi Performance Test Nursery through 1993 to 1995 (3 yrs. in 37 environments). Yielded 3954.0 kg/ha, 3483.0 kg/ha and 3570.0 kg/ha on average in 1993, 1994, and 1995. Those were 0.2%, 10.7% and 5.6% higher than the check Jinmai 33 respectively (Jinmai 33 yielded 3946.5 kg/ha, 3147.0 kg/ha, and 3381.0 kg/ha on average in 1993, 1994, and 1995). Was 3-10d earlier and 5 cm shorter than the check Jinmai 33. In the National Performance Tests in 6 provinces in 1994 and 1995 (2 years in 19 environments), yielded 3274.5 kg/ha and 4107 kg/ha on average, and 2.35% and 13.4% higher than check Jinmai 33, and 3-7 d earlier and 7 cm shorter than the check. Pale and medium long coleoptile. Seedling is prostrate with short to medium long and mid to dark-green leaves and harmoniously developed tillers. The auricles smooth and pale green. At flowering stage, top auricle height was 60-80 cm. Plant height about 85-100 cm. Flag leaf narrow and.

**PI 634021 QUAR. *Triticum aestivum* L.**

Cultivar. "JINMAI 61"; YunFengZao 21. CV-973. Pedigree - Zheng891 (Yumai 13)/Yan 1604 (Lumai 14). Officially tested in the Southern Shanxi Performance Test Nursery in limited-irrigation lands. In 1997, yielded 6493.5 kg/ha on average (11 locations), 13.2% higher than the check Jinmai 31 (5734.5 kg/ha). In 1998, yielded 5278.5 kg/ha on average (also 11 locations), 8.5% higher than the check Jinmai 31 (4863.0 kg/ha). In those 22 Location-years, yielded 5886.0 kg/ha on average, 11.13% higher than the check Jinmai 31. In the official Demonstration Trials in 1998 in both Linfen and Yencheng prefectures, yielded 5.3% higher than the check Jinmai 31 on average (8 locations). Pale coleoptiles with about 50% coleoptile tillers, prostrate seedlings with narrower and longer dark-green leaves, smooth and pale auricles. Top auricles height 50-70 cm, plant height 70-90 cm with moderate resistance to lodging. White glume with an oblique shoulder and 2-4 mm beak. Head fully awned, mid-dense and oblong to clavate in shape. Kernel is vitreous and elongated with higher height/width ratio.

The following were donated by Central Siberian Botanical Gardens, Academy of Sciences of USSR, Siberian Branch, Novosibirsk, Novosibirsk 630090, Russian Federation. Received 05/22/1990.

**PI 634022. *Medicago sativa* nothosubsp. *varia* (Martyn) Arcang.**

Wild. W6 4312. Collected in Russian Federation. Latitude 56 deg. 5' N. Longitude 92 deg. 46' E. Krasnoyarsk region.

The following were donated by N.I. Vavilov Institute of Plant Industry, 44

Herzen Street, Leningrad, Leningrad 190000, Russian Federation. Received 07/24/1990.

**PI 634023. *Medicago sativa* subsp. *falcata* (L.) Arcang.**  
Cultivar. "DIKORASTUSCAJA"; VIR-11712; W6 4800. Collected in Kazakhstan.

**PI 634024. *Medicago sativa* subsp. *falcata* (L.) Arcang.**  
Cultivar. "JAKUTSKAJA ZELTAJA"; VIR-44033; W6 4811. Collected in Russian Federation. Jakut ASSR.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 634025. *Medicago suffruticosa* subsp. *leiocarpa* (Benth.) Urb.**  
Wild. 1631; W6 4951. Collected 1963 in France. Latitude 42 deg. 46' N. Longitude 2 deg. 42' E. 5km from Estagel to St. Paul du Fe.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 634026. *Medicago suffruticosa* subsp. *leiocarpa* (Benth.) Urb.**  
Cultivated. 555; W6 4954. Collected in Spain.

The following were collected by K.A. Lesins. Donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 634027. *Medicago sativa* subsp. *falcata* (L.) Arcang.**  
Wild. 297; W6 5055. Collected 1959 in Italy. Latitude 46 deg. 33' N. Longitude 12 deg. 8' E. Cortina.

The following were donated by P. N. D. Seymour, University of Alberta, Devonian Botanic Gardens, Edmonton, Alberta, Canada. Received 02/11/1990.

**PI 634028. *Medicago sativa* L. subsp. *sativa***  
Cultivated. 145; W6 5780. Collected 1961 in Sweden. Bot. Garden, Sofia.

**PI 634029. *Medicago sativa* subsp. *falcata* (L.) Arcang.**  
Cultivated. 1829; W6 5839. Collected in Wisconsin, United States.

**PI 634030. *Medicago sativa* subsp. *falcata* (L.) Arcang.**  
Wild. 208; W6 5875. Collected 1959 in South Moravia, Czech Republic. Latitude 49 deg. 12' N. Longitude 16 deg. 38' E. Femedelska, Brno.

**PI 634031. *Medicago sativa* subsp. *falcata* (L.) Arcang.**  
Wild. 2287; W6 5879.

**PI 634032. *Medicago sativa* subsp. *falcata* (L.) Arcang.**  
Cultivated. 2302; W6 5887. Collected in Russian Federation. Reprod. Centr.-Siber. Bot. Garden, Novosibirsk. Org. Northern Alfai, steppe-meadow.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California, Cooperative Extension Service, 777 E. Rialto Avenue, San Bernadino, California 92415-0730, United States; Saddik Saidi, Morocco. Received 08/19/1994.

**PI 634033. *Lotus corniculatus* L.**

Wild. M100.CPG94; W6 15829. Collected 07/19/1994 in Morocco. Latitude 33 deg. 33' 3'' N. Longitude 5 deg. 6' 43'' W. Elevation 1500 m. Near Ifrane, 3 k from center of Ifrane toward El-Hajeb on road S309. Grazed, settlement. Slope 0-5%, aspect W. 1/4 shade. Soil loam on calcareous alluvium bedrock, meadow peat-sod zone, pH 9.5-10.0. Moist, stream terrace. Vegetation closed, seasonal tall grass. Surrounding veg. evergreen forest, picnic area. Population abundance frequent, distribution patchy. Growth habit prostrate. Flower yellow.

The following were collected by Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Nicolay Portinier, Kamorov Institute of Botany, St. Petersburg, Leningrad, Russian Federation; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

**PI 634034. *Medicago sativa* subsp. *falcata* (L.) Arcang.**

Wild. 0203; 056; W6 18338. Collected 07/29/1995 in Russian Federation. Latitude 43 deg. 27' 37'' N. Longitude 43 deg. 0' 38'' E. Elevation 975 m. Province Nal'Chir/Prokhladnyy (Kabardin-Balkarskaya Republic), 5 km southwest of Bylym. Past logged, now grazed. Slope 0-5%, aspect SE. Light open. Soil sand & loam with gravel, pH 8.4-8.7, sediments of many sized materials. Seasonally dry, man made terraces with orchard berry production. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Origanum* sp. Population distribution patchy, abundance frequent. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634035. *Trifolium hybridum* L.**

Wild. M115; W6 18382. Collected in Russian Federation. Latitude 44 deg. 40' 57'' N. Longitude 37 deg. 57' 8'' E. Elevation 380 m. Province Novorossiysk, 3 km north of Kabardinka. Past logged, now grazed. Slope 11-40%, aspect SW. Light open. Soil clay, parent rock platey limestones, pH 7.5-8.0. Seasonally dry, lower to upper slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation seasonal tall grass. Dominant tree species *Quercus* sp. Dominant shrub species *Carpinus* sp., *Quercus* sp. Dominant herb/grass species *Achillea* sp., *Festuca* sp., *Agropyron cristatum*, *Phleom* sp., *Salvia* sp., *Sanguisorba minor*, *Plantago* sp. Population distribution patchy. Growth habit erect. Flower pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634036. *Trifolium hybridum* L.**

Wild. M124; W6 18387. Collected 08/21/1995 in Russian Federation.

Latitude 44 deg. 33' 30'' N. Longitude 38 deg. 21' 48'' E. Elevation 690 m. Province Novorossiysk, 10 km north of Michaelovski-Perival. Past logged, now grazed. Slope 0-5%, aspect NW. Light open. Soil clay, limestone/slate, some shales, sandstones, pH 5.6-7.5. Seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp. Dominant shrub species *Caprinus* sp., *Quercus* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Festuca pratensis*, *Poa* sp., *Potentilla* sp., *Medicago falcata*, *Onobrychis* sp., *Aster* sp., *Dactylis glomerata*, *geranium* sp. Population abundance frequent. Growth habit erect. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634037. *Trifolium caucasicum* Tausch**

Wild. M133; W6 18393. Collected in Russian Federation. Latitude 44 deg. 32' 17'' N. Longitude 38 deg. 20' 46'' E. Elevation 420 m. Province Novorossiysk, 6 km north of Michaelovski-Perival. Past logged, now roadway. Slope 6-10%, aspect S. Light 1/4 shade. Soil clay, parent rock limestone, pH basic. Seasonally dry, mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp. Dominant shrub species *Caprinus* sp., *Quercus* sp., *Ribes*, *Dorycnium intermedium*. Dominant herb/grass species *Trifolium* sp., *Dactylis glomerata*, *Daucus carota*. Population abundance frequent. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634038. *Trifolium fragiferum* L.**

Wild. M143; W6 18400. Collected 08/22/1995 in Russian Federation. Latitude 43 deg. 52' N. Longitude 39 deg. 22' E. Elevation 5 m. Province Lazarevskoye-Sochi, south on river floodplain near Soloniki. Past logged, now roadway. Slope 0-5%, aspect S. Light open. Soil clay, parent rock limestone, pH basic. Moist, floodplain. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass. Dominant tree species *Quercus* sp., *Caprinus* sp. Dominant shrub species *Laurocerasus* sp. Dominant herb/grass species white clover, Bermuda grass, *Galega officinalis*. Population distribution patchy. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634039. *Trifolium fragiferum* L.**

Wild. M147; W6 18405. Collected 08/22/1995 in Russian Federation. Latitude 43 deg. 50' 54'' N. Longitude 39 deg. 24' 32'' E. Elevation 15 m. Province Lazarevskoye-Souchi, 10 km east of Soloniki. Past logged, now grazed. Slope 11-40%, aspect S. Light 1/2 shade. Soil clay, parent rock limestone, pH 7.4-7.5. Seasonally dry, lower to mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp., *Carpinus* sp. Dominant shrub species *Laurocerasus* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Festuca pratensis*, *Agrimonia eupatoria*, *Vicia* sp., *Dorycnium intermedium*, *Senecio* sp., *Origionium regata*, *Coronilla varia*, *Geranium* sp., *Inula*

britannia, Daucus carota, Plantago sp. Population abundance frequent. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634040. Trifolium hybridum L.**

Wild. M152; W6 18409. Collected 08/22/1995 in Russian Federation. Latitude 43 deg. 44' 59'' N. Longitude 39 deg. 41' 1'' E. Elevation 300 m. Province Souchi, 12 km north of Dagomys, to west of site 78. Past logged, now grazed. Slope 11-40%, aspect SE. Light open. Soil clay, parent rock limestone, schists/shale, pH 5.9-6.0. Filbert orchard. Moist, ridgetop, upper slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass. Dominant tree species Carpinus sp., Quercus sp., Quercus robur. Dominant shrub species Laurocerasus sp., Ribes sp. Dominant herb/grass species Calamagrostis sp., grass dominant, ferns, blackberry. Population abundance rare. Growth habit erect. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634041. Trifolium fragiferum L.**

Wild. M154; W6 18410. Collected 08/23/1995 in Russian Federation. Latitude 43 deg. 45' 20'' N. Longitude 39 deg. 41' 41'' E. Elevation 230 m. Province Souchi, 10 km north of Dagomys. Past logged, now grazed, roadway. Slope 11-40%, aspect S. Light open. Soil clay, limestones, calcareous soils, pH 7.8. Moist, mid slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen broad-leafed herb vegetation. Dominant tree species Quercus sp., Carpinus sp. Dominant shrub species Laurocerasus sp., Ribes sp. Dominant herb/grass species Trifolium sp., Bermuda, Aster sp. types. Population abundance frequent. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634042. Trifolium fragiferum L.**

Wild. M159; W6 18415. Collected 08/23/1995 in Russian Federation. Latitude 43 deg. 45' 20'' N. Longitude 39 deg. 41' 41'' E. Elevation 230 m. Province Souchi, 10 km north of Dagomys. Past logged, now grazed. Slope 11-40%, aspect S. Light open. Soil clay, limestone, calcareous soils, pH 7.8. Moist, mid slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen broad-leafed herb vegetation. Dominant tree species Quercus sp., Carpinus sp. Dominant shrub species Laurocerasus sp., Ribes. Dominant herb/grass species Trifolium sp., Bermuda, Aster sp. types. Population abundance frequent. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634043. Trifolium hybridum L.**

Wild. M160; W6 18416. Collected in Russian Federation. Latitude 43 deg. 37' 8'' N. Longitude 39 deg. 49' 14'' E. Elevation 100 m. Province Souchi, 2 km north of Ismyolfka/Metseska. Past logged, now grazed. Slope 0-5%, aspect S. Light open. Soil clay, limestone, schists on slopes, pH

6.9-7.0. Moist, floodplain. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Carpinus* sp., *Quercus* sp. Dominant shrub species *Sambucus* sp., *Ribes* sp., *Lauracerasus* sp. Dominant herb/grass species *Trifolium* sp., Bermuda grass, *Mentha arvensis*. Population abundance occasional. Growth habit erect. Flower rose-red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634044. *Trifolium fragiferum* L.**

Wild. M161; W6 18417. Collected in Russian Federation. Latitude 43 deg. 37' 8'' N. Longitude 39 deg. 49' 14'' E. Elevation 100 m. Province Souchi, 2 km north of Ismyolfka. Past logged, now grazed. Slope 0-5%, aspect S. Light open. Soil clay, limestone, schitsts on slopes, pH 6.9-7.0. Moist, floodplain. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Carpinus* sp., *Quercus* sp. Dominant shrub species *Sambucus* sp., *Ribes* sp., *Lauracerasus* sp. Dominant herb/grass species *Trifolium* sp., Bermuda grass, *Mentha arvensis*. Population abundance frequent. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

Unknown source. Received 01/1996.

**PI 634045. *Trifolium fragiferum* L.**

Wild. W6 18421.

The following were collected by Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Nicolay Portinier, Kamorov Institute of Botany, St. Petersburg, Leningrad, Russian Federation; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

**PI 634046. *Trifolium hybridum* L.**

Wild. 0007; 0173; W6 18431. Collected 08/30/1995 in Russian Federation. Latitude 44 deg. 5' 30'' N. Longitude 40 deg. 0' 56'' E. Elevation 1650 m. Province Maykop, 25 km southwest of Dakhovskaya. Past logged, now grazed and roadway. Slope 6-10%, aspect S. Light open. Soil loam. Moist, mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding veg. open evergreen and deciduous forest with closed lower layers. Dominant tree species *Fagus* sp., Beech, *Caprinus* sp., *Abies* sp., *Picea* sp. Dominant shrub species *Laurocerasus officinalis*, *Rhododendron*. Dominant herb/grass species *Trifolium* sp., *Plantago* sp., *Deschampsia cespitosa*, *Alchemilla* sp., *Cirsium obvallatum*, *Rumex conferitus*, *Cephalaria gigantea*. Population distribution patchy. Growth habit erect. Flower rose, may be off-color type. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634047. *Trifolium repens* L.**

Wild. 0059; 0177b; W6 18437. Collected 09/01/1995 in Russian Federation. Latitude 43 deg. 59' 49'' N. Longitude 40 deg. 8' 15'' E. Elevation 540 m. Province Maykop, .5 km southeast of Goozeripl'. Past logged, now grazed and settlement. Slope 6-10%, aspect S. Light open. Soil clay with gravel, clay schists colluvium, pH 5.5. Seasonally dry, lower slope. Vegetation closed, evergreen tall grass. Surrounding vegetation open evergreen and deciduous forest with closed lower layers. Dominant tree species *Abies n.*, *Picea o.*, *Fagus o.*, *Acer t.* Dominant shrub species *Laurocerasus o.*, *Rhododendron sp.* Dominant herb/grass species *Trifolium sp.*, *Festuca sp.* Population distribution uniform, abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634048. *Trifolium repens* L.**

Wild. 0015; 0180; W6 18438. Collected 08/30/1995 in Russian Federation. Latitude 44 deg. 3' 30'' N. Longitude 40 deg. 1' 14'' E. Elevation 1800 m. Province Maykop, 32 km. southwest of Dakhovskaya. Past logged, now grazed. Slope 6-10%, aspect S. Light open. Soil loam to clay. Moist to seasonally dry, upper to mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant tree species Birch, *Betula sp.*, *Pinus sp.*, *Acer sp.*, *Fagus sp.* Dominant shrub species *Juniperus sp.* Dominant herb/grass species *Achemilla sp.*, *Plantago sp.*, *Festuca v.*, *Deschampsia c.*, *Phleum a.* Population distribution uniform, abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

The following were developed by J.R. Simplot Company, United States. Received 07/07/2004.

**PI 634048 PVPO. *Poa pratensis* L.**

Cultivar. "Courtyard". PVP 200400237.

The following were collected by Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Nicolay Portinier, Kamorov Institute of Botany, St. Petersburg, Leningrad, Russian Federation; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

**PI 634049. *Trifolium repens* L.**

Wild. 0028; 0193; W6 18443. Collected 08/31/1995 in Russian Federation. Latitude 44 deg. 2' 54'' N. Longitude 40 deg. 0' 59'' E. Elevation 1965 m. Province Maykop, 34 km southwest of Dakhovskaya. Past and current grazing. Slope 0-5%, aspect S. Light open. Soil clay loam, pH neutral-7.5, limestones derived soils. Moist, swale next to road/trail. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant tree species *Betula sp.*, *Pinus sp.*, *Acer sp.*, *Fagus sp.* Dominant shrub species *Juniperus sp.* Dominant herb/grass species *Alchemilla sp.*, *Trifolium sp.*, *Plantago sp.*, *Festuca v.*, *Deschampsia c.*, *Phleum sp.*,

*Agrostis* sp. Population distribution patchy, abundance occasional. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634050. *Trifolium hybridum* L.**

Wild. 0042; 0208; W6 18452. Collected 09/03/1995 in Russian Federation. Latitude 44 deg. 12' 29'' N. Longitude 40 deg. 15' 10'' E. Elevation 550 m. Province Maykop, 5 km southeast of Dakhovskaya. Past logged, now roadway. Slope 0-5%, aspect SE. Light open. Soil loam upper to 25 cm, clay >25 cm, pH 5.9-5.3 with depth, parent rock colluvial clays. Seasonally dry, mid slope. Vegetation closed, evergreen tall grass and broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant tree species *Quercus* sp., *Carpinus* c. Dominant shrub species *Rosa* sp. Dominant herb/grass species *Daucus* c., *Trifolium* sp., *Achillea* sp., *Geranium* sp., *Brachypodium* p., *Festuca* sp., *Calamagrostis* sp., *Agrostis* sp., *Phleum* p. Population distribution patchy, abundance frequent. Growth habit erect. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634051. *Trifolium fragiferum* L.**

Wild. M216; W6 18455. Collected 09/03/1995 in Russian Federation. Latitude 44 deg. 9' 52'' N. Longitude 40 deg. 14' 20'' E. Elevation 620 m. Province Maykop, 15 km northeast of Dokhovskaya. Past logged, now grazed, roadway, and settlement. Slope 0-5%, aspect S. Light open. Soil clay. Moist, lower slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp., *Quercus robur*, *Carpinus* sp. Dominant shrub species *Quercus* sp., *Rosa* sp. Dominant herb/grass species *Trifolium* sp., *Ambrosia*, *Descampsia* sp., *Elytregia* sp., *Dactylis* g. Population distribution patchy, abundance rare. Growth habit prostrate. Flower rose-pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634052. *Trifolium fragiferum* L.**

Wild. 0062; 0219; W6 18457. Collected 09/04/1995 in Russian Federation. Latitude 44 deg. 37' 7'' N. Longitude 40 deg. 29' 24'' E. Elevation 340 m. 1 km. east of Yeroslavskaya, 30+ km. east of Maykop. Area grazed. Slope 11-40%, aspect S. Light open. Soil clay, pH 6.3-7.0. Seasonally dry, lower slope. Vegetation closed, seasonal tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Crataegus* sp., *Quercus* sp., *Monogyna*, *Pentagyna*. Dominant shrub species *Rosa* sp., *Prunus* sp. Dominant herb/grass species *Achillea* sp., *Daucus* c., thistle, bindweed, chicory, *Bothriochloa* i., *Cynodon* d. Population distribution uniform, abundance frequent. Growth habit prostrate. Flower pink-rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634053. *Trifolium hybridum* L.**

Wild. 0072; 0229; W6 18461. Collected 07/22/1995 in Russian Federation. Latitude 44 deg. 10' 2'' N. Longitude 40 deg. 50' 56'' E. Elevation 579 m. Province Maykop, 1.5 km. east of Psebay. Area grazed. Slope 0-5%,

aspect SW. 1/2 shade. Soil sand with gravel, pH 5.3-5.4. Moist, stream terrace. Vegetation closed, open deciduous forest with closed lower layers. Surrounding veg. evergreen tall grass and seasonal broad-leafed herb veg. Dominant tree species Hornbeam-Oak, *Carpinus* sp. Dominant shrub species *Carpinus* c., *Q. petraea*, willows, *Ribes*. Dominant herb/grass species *Asperula* sp., thistles, *Festuca* d., *Erytregia* sp., *Calamagrostis* sp., *Lolium* p. Population distribution patchy, abundance occasional. Growth habit erect. Flower pink-white-almost red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634054. *Trifolium repens* L.**

Wild. 0074; 0231; W6 18463. Collected 09/05/1995 in Russian Federation. Latitude 44 deg. 5' 4" N. Longitude 40 deg. 50' 38" E. Elevation 640 m. Province Maykop/Labrinsk, 10 km southeast of Psebay. Past and current grazing. Slope 6-10%, aspect SW. Light open. Soil clay rock derived, pH 5.2-5.6. Moist to seasonally dry, lower slope, stream terrace. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus robur*, *Quercus* sp., *Fagus* o., *Carpinus* c. Dominant shrub species *Laurocerasus officinalis*, *Crataegus* sp., *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Lotus* c., *Achillea* sp., *Trifolium* sp., wild strawberry, *Geranium* sp., *Phleum* p., other grasses. Population distribution patchy, abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634055. *Trifolium hybridum* L.**

Wild. 0076; 0233; W6 18465. Collected 09/05/1995 in Russian Federation. Latitude 44 deg. 5' 4" N. Longitude 40 deg. 50' 38" E. Elevation 640 m. Province Maykop/Labrinsk, 10 km southeast of Psebay. Past and current grazing. Slope 6-10%, aspect SW. Light open. Soil clay rock derived, pH 5.2-5.6. Moist to seasonally dry, lower slope, stream terrace. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus robur*, *Quercus* sp., *Fagus* o., *Carpinus* c. Dominant shrub species *Laurocerasus officinalis*, *Crataegus* sp., *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Lotus* c., *Achillea* sp., *Trifolium* sp., wild strawberry, *Geranium* sp., *Phleum* p., other grasses. Population distribution patchy, abundance frequent. Growth habit erect. Flower pink-white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634056. *Trifolium repens* L.**

Wild. 0090; 0247; W6 18472. Collected 09/06/1995 in Chelyabinsk, Russian Federation. Latitude 43 deg. 43' 8" N. Longitude 41 deg. 35' 46" E. Elevation 1190 m. Province Cherkessk-Karachayeysk Republic (Karachayevo-Cherkesskaya Republic), 8 km south of Marvkha. Fields used for hay, no grazing. Slope 6-10%, aspect SW. Light open. Soil colluvial clays, rock clay schists, pH 5.0-5.3. Moist to seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Rhododendron* sp., *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Lotus* c., *Achillea* sp., Dandelion,

*Deschampsia c.*, *Phleum p.*, *Dactylis g.*, *Agrostis sp.*, *Calamagrostis sp.*  
Population distribution patchy, abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634057. *Trifolium hybridum* L.**

Wild. 0092; 0249; W6 18473. Collected 09/06/1995 in Chelyabinsk, Russian Federation. Latitude 43 deg. 43' 8" N. Longitude 41 deg. 35' 46" E. Elevation 1190 m. Province Cherkessk-Karachayeysk Republic (Karachayevo-Cherkesskaya Republic), 8 km south of Marvka. Fields used for hay, no grazing. Slope 6-10%, aspect SW. Light open. Soil colluvial clays, rock clay schists, pH 5.0-5.3. Moist to seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leaved herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Rhododendron sp.*, *Rosa sp.*, *Ribes sp.* Dominant herb/grass species *Trifolium sp.*, *Lotus c.*, *Achillea sp.*, Dandelion, *Deschampsia c.*, *Phleum p.*, *Dactylis g.*, *Agrostis sp.*, *Calamagrostis sp.* Population distribution patchy, abundance frequent. Growth habit erect. Flower white-pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634058. *Trifolium hybridum* L.**

Wild. 0099; 0256; W6 18479. Collected 09/07/1995 in Karelia, Russian Federation. Latitude 43 deg. 28' 28" N. Longitude 41 deg. 40' 54" E. Elevation 1800 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 8 km west of Teberda. Past logged, now grazed. Slope 41-60%, aspect S. Light 3/4 shade to shaded. Soil loam, granite derived. Seasonally dry, lower to mid slope. Vegetation closed, evergreen open forest with closed lower layers. Surrounding vegetation same. Dominant tree species *Pinus syl.*, *hamata* on south slope, *Abies n.*, *Picea o.* on north slope. Dominant shrub species *Juniperus oblonga*, *Rosa sp.*, *Ribes sp.* Dominant herb/grass species *Achillea sp.*, *Trifolium sp.*, *Coronilla sp.*, *Lotus c.*, *Deschampsia c.*, *Festuca sp.*, *Agrostis sp.*, *Calamagrostis sp.* Population distribution patchy, abundance occasional. Growth habit erect. Flower white-pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634059. *Trifolium repens* L.**

Wild. 0134; 0266; W6 18493. Collected 09/07/1995 in Karelia, Russian Federation. Latitude 43 deg. 28' 28" N. Longitude 41 deg. 40' 54" E. Elevation 1800 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 8 km west of Teberda. Past logged, now grazed. Slope 41-60%, aspect S. Light 3/4 shade to shaded. Soil loam, granitic derived. Seasonally dry, lower to mid slope. Vegetation closed, evergreen open forest with closed lower layers. Surrounding vegetation same. Dominant tree species *Pinus syl.*, *hamata* on south slope, *Abies n.*, *Picea o.* on north slope. Dominant shrub species *Juniperus oblonga*, *Rosa sp.*, *Ribes sp.* Dominant herb/grass species *Achillea sp.*, *Trifolium sp.*, *Coronilla sp.*, *Lotus c.*, *Deschampsia c.*, *Festuca sp.*, *Agrostis sp.*, *Calamagrostis sp.* Population distribution patchy, abundance occasional. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634060. *Trifolium hybridum* L.**

Wild. W6 18515. Collected 09/19/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village Zazulin. Now cut/grazed. Slope 0-5%. Open. Moist, ridgetop (watershed). Vegetation closed, seasonal broad-leaved herb vegetation. Dominant herb/grass species *Prunella vulgaris*, *Plantago lanceolata*, *Daucus carota*, *Fillipendula vulgaris*, *Leontodon caucasicus*, *Molinia caerulea*, *Dorycnium herbaceum*. Population distribution uniform, abundance frequent. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634061. *Trifolium medium* L.**

Wild. W6 18522. Collected 09/20/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Temnolesskaya. Now logged. Slope 6-10%. 1/4 shade. Moist, mid slope. Vegetation closed, primary deciduous forest, scrub with scattered trees. Dominant tree species *Carpinus betulus*, *Quercus robur*, *Castanea vulgaris*. Dominant shrub species *Rosa* sp., *Corylus avellana*, *Salix caprea*. Dominant herb/grass species *Calamagrostis* sp., *Doricinium graecum*, *Trifolium medium*. Population distribution patchy, abundance occasional. Growth habit prostrate. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634062. *Trifolium repens* L.**

Wild. W6 18529. Collected 09/22/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, plateau Lagonaki. Now grazed. 0-6%. Open. Moist, plateau. Vegetation closed, seasonal short grass. Dominant herb/grass species *Brachipodium pinnatum*, *Bromopsis riparia*, *Festuca rupicola*, *Koeleria cristata*, *Geranium saguineum*, *Plantago lanceolata*. Population distribution uniform, abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634063. *Trifolium hybridum* L.**

Wild. W6 18536. Collected 09/24/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Krasnly, Dagestan. Now cut/grazed. Slope 0-6%. Open. Moist, ravine. Vegetation closed, seasonal short grass and broad-leaved herb vegetation. Dominant herb/grass species *Deschampsia* c., *Inula* h., *Plantago lanceolata*, *Leontodon caucasicum*, *Agrimonia eupatoria*. Population distribution uniform, abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634064. *Trifolium repens* L.**

Wild. W6 18538. Collected 09/28/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Krasnaia Polyana. Now grazed. Slope 6-10%, aspect NE. Open. Moist, upper slope. Vegetation closed, seasonal short grass. Population distribution patchy, abundance occasional. Growth habit prostrate. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634065. *Trifolium hybridum* L.**

Wild. W6 18542. Collected 10/02/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Terzian. Slope 6-11%, aspect NW. Open. Moist, mid slope. Vegetation closed, seasonal short grass. Dominant herb/grass species *Agrostis tenuis*, *Cirsium* sp. Population distribution uniform, abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634066. *Trifolium hybridum* L.**

Wild. W6 18543. Collected 10/03/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Verhnie Tuby. Slope 6-11%, aspect SW. Open. Moist, upper slope. Vegetation closed, seasonal tall grass. Dominant herb/grass species *Dactylis glomerata*, *Inula helenium*, *Cirsium caput-medusae*, *Geranium* sp., *Brachypodium silvatica*. Population distribution uniform (near path), abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634067. *Trifolium fragiferum* L.**

Wild. VIR D104; W6 18549. Collected 08/12/1995 in Russian Federation. Latitude 44 deg. 24' 35'' N. Longitude 39 deg. 39' 35'' E. Elevation 300 m. Southwest of Maykop, 2 km. north of Neffyanaya. Past logged, now grazed. Slope 0-5%, aspect N. 1/4 shade. Soil clay with some gravel, pH 5.1-5.5. Seasonally dry, mid slope. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Dominant shrub species *Carpinus* sp., *Q. petraea*. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634068. *Trifolium fragiferum* L.**

Wild. D116; W6 18556. Collected in Krasnodar, Russian Federation. Latitude 44 deg. 47' 37'' N. Longitude 38 deg. 33' 28'' E. Elevation 210 m. Province Krasnodar, southwest of Krasnodar, village Azovskaya. Past cultivated, now grazed. Slope 0-5%, aspect W. Light open. Soil loam, clay, pH 4.8-6.2, 0-15 cm. Seasonally dry, mid slope. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Fagus* sp., *Quercus* sp. Dominant shrub species *Ribes* sp., *Prunus* sp., *Carpinus* sp., *Crataegus* sp. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634069. *Trifolium fragiferum* L.**

Wild. D84; W6 18592. Collected 08/10/1995 in Russian Federation. Latitude 44 deg. 23' 53'' N. Longitude 39 deg. 55' 35'' E. Elevation 366 m. Province Maykop, 30 km southwest of Maykop, village Bizvodnah. Past logged, now grazed. Slope 0-5%, aspect S. Light 1/4 shade. Soil clay, pH 7.7. Seasonally dry, lower to mid slope. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Dominant shrub species *Carpinus* sp., *Q. petraea*. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable

for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634070. *Trifolium fragiferum* L.**

Wild. VIR D92; W6 18596. Collected 08/11/1995 in Russian Federation. Latitude 44 deg. 15' 21'' N. Longitude 39 deg. 45' 12'' E. Nearest s. Chernigovskaya. Roadside. 1/4 shade. Soil loam, pH 5.0-5.4. Moist. Vegetation roadside mixture including Lotus c., *Trifolium bonannii*, *Galega officinalis*. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

The following were collected by T.A. Campbell, USDA-ARS, Germplasm Quality and Enhancement Lab, Building 001, Room 339, Beltsville, Maryland 20705, United States; John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Larry K. Holzworth, USDA-NRCS State Office, Federal Bldg., Room 443, 10 E. Babcock, Bozeman, Montana 59715-4704, United States. Received 12/1997.

**PI 634071. *Trifolium repens* L.**

Wild. X97-021; W6 20177. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 14' 9'' N. Longitude 81 deg. 11' 25'' E. Elevation 2370 m. 8 km north of Zhaosu Horse Breeding Farm. High mountain meadow, silt loam, gently rolling landscape, native grassland, will be cut for winter hay, field road running through site. Slope is 2% with northwest aspect.

**PI 634072. *Trifolium pratense* L.**

Wild. X97-037; W6 20181. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 10' 12'' N. Longitude 81 deg. 5' 5'' E. Elevation 1920 m. 5 km northwest of Zhaosu County. Mountain meadow, disturbed area along abandoned roadway. Silt loam soil, some gravel outwash. Ungrazed, will be cut for hay and winter grazed. Slope is 1% with south aspect.

**PI 634073. *Trifolium pratense* L.**

Wild. X97-101; W6 20198. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 20' 31'' N. Longitude 81 deg. 49' 1'' E. Elevation 1710 m. 20 km north of Tekes County. Ungrazed hillside with failed evergreen tree planting on pass through mountains. Silt loam soil. Moderately dense vegetation with a high proportion of forbs. Slope is 20% with north-northwest aspect.

The following were collected by Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

**PI 634074. *Trifolium repens* L.**

Uncertain. C111; W6 20339. Collected 07/1997 in California, United States. Point Arena. Roadside 50 meters from end of Port road. Roadway. Sand. Slope 0-5%. Open. Moist. Dune.

**PI 634075. *Trifolium repens* L.**

Uncertain. C104; W6 20340. Collected 07/1997 in California, United States. Latitude 38 deg. 37' 36'' N. Longitude 123 deg. 23' 3'' W. Elevation 28 m. Salt Point. Two miles north of Salt Point State Park. Roadway/Seaside meadow. Sand/Loam. Slope 0-5%. Open. Seasonally dry. Cliff/Upper slope.

**PI 634076. *Trifolium repens* L.**

Uncertain. C129; W6 20352. Collected 08/1997 in California, United States. Elevation 0 m. 1/2 mile west of town of Loleta, on Cannibal Road. Grazed, unirrigated dairy farm. Sand/loam, open, 0-5% slope, seasonally dry, alluvial fan.

**PI 634077. *Trifolium repens* L.**

Uncertain. C136; W6 20359. Collected 08/1997 in California, United States. Elevation 0 m. 1/2 mile east of Ferndale. Grazed, sand/loam, 0-5% slope, open. Diverse mix of species present.

**PI 634078. *Trifolium repens* L.**

Uncertain. C154; W6 20371. Collected 08/1997 in California, United States. Elevation 0 m. South of town of Smith River. Grazed, irrigated dairy pasture, loam, 0-5% slope, open, moist, stream terrace. Cocksfoot is the dominant grass.

**PI 634079. *Trifolium repens* L.**

Uncertain. OR1; W6 20374. Collected 08/1997 in Oregon, United States. Latitude 42 deg. 16' 2'' N. Longitude 124 deg. 23' 56'' W. Elevation 20 m. Town of Pistol River in southwest Oregon. 200 m inland from Highway 101. Grazed, loam, 0-5% slope, open, moist, stream terrace. Rough beef pasture on low terrace.

**PI 634080. *Trifolium repens* L.**

Uncertain. OR20; W6 20385. Collected 08/1997 in Oregon, United States. Latitude 43 deg. 32' 33'' N. Longitude 124 deg. 9' 20'' W. Elevation 89 m. Templeton Valley at bridge, lower paddock (of two). From Hauser, 8 miles up the road to Templeton. Grazed, loam, 0-5% slope, open, seasonally inundated, stream terrace. Once good pasture, but creek became blocked and now it's wet in winter and rushes had spread.

**PI 634081. *Trifolium repens* L.**

Uncertain. OR28; W6 20394. Collected 08/1997 in Oregon, United States. Latitude 43 deg. 39' 22'' N. Longitude 124 deg. 5' 22'' W. Elevation 86 m. 3 miles southeast of Reedsport, Douglas County on Route 55. Grazed (cattle), sand/loam, 0-5% slope, open, seasonally inundated, stream terrace. Field very wet in winter.

**PI 634082. *Trifolium pratense* L.**

Uncertain. OR30; W6 20396. Collected 08/1997 in Oregon, United States. Latitude 43 deg. 39' 22'' N. Longitude 124 deg. 5' 22'' W. Elevation 86 m. 3 miles southeast of Reedsport, Douglas County on Route 55. Grazed (cattle), sand/loam, 0-5% slope, open, seasonally inundated, stream terrace. Field very wet in winter.

**PI 634083. *Trifolium repens* L.**

Uncertain. OR48; W6 20410. Collected 08/1997 in Oregon, United States. Latitude 44 deg. 5' 44'' N. Longitude 123 deg. 42' 54'' W. Elevation 81 m. Near town of Greenleaf, 4 - 5 miles east of Deadwood on Route 36. Town of Greenleaf. Grazed/mown, loam, 0-5% slope, open, seasonally dry,

stream terrace.

**PI 634084. *Trifolium pratense* L.**

Wild. OR73; W6 20421. Collected 08/1997 in Oregon, United States. Latitude 46 deg. 12' 19'' N. Longitude 123 deg. 57' 16'' W. Elevation 10 m. Near town of Hammond, Columbia River beach, riverside park. Dune/stream terrace, sand, 0-5% slope, open, seasonally dry.

**PI 634085. *Trifolium repens* L.**

Uncertain. W20; W6 20469. Collected 08/1997 in Washington, United States. Latitude 47 deg. 3' 29'' N. Longitude 124 deg. 0' 9'' W. Elevation 20 m. Town of Copalis Crossing. Seward Nursery. Stream terrace, grazed pasture. Loam, 0-5% slope, open, moist.

**PI 634086. *Trifolium repens* L.**

Uncertain. W16; W6 20473. Collected 08/1997 in Washington, United States. Latitude 47 deg. 4' 13'' N. Longitude 124 deg. 10' 22'' W. Elevation 5 m. Ocean City. On beach and roadsides near beach. Sand dune, 0-5% slope, open, moist.

**PI 634087. *Trifolium repens* L.**

Uncertain. W33; W6 20480. Collected 08/1997 in Washington, United States. Latitude 47 deg. 56' 25'' N. Longitude 124 deg. 23' 23'' W. Elevation 60 m. Old grazed pasture adjacent to town of Forks. Loam, 0-5% slope, open, moist.

**PI 634088. *Trifolium repens* L.**

Uncertain. W54; W6 20489. Collected 08/1997 in Washington, United States. Latitude 48 deg. 16' 26'' N. Longitude 124 deg. 21' 28'' W. Elevation 20 m. Hoko River Bridge. Stream terrace, cattle pasture. Loam, 0-5% slope, open, moist. *Agrostis* dominant with Californian thistle, buttercup, white clover, cocksfoot, tall fescue, plantain, *Phalaris*.

**PI 634089. *Trifolium pratense* L.**

Uncertain. W66; W6 20497. Collected 08/1997 in Washington, United States. Latitude 48 deg. 7' 53'' N. Longitude 123 deg. 43' 24'' W. Elevation 20 m. East of Joyce in abandoned paddock, once grazed. Loam, 0-5% slope, open, seasonally dry.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 634090. *Medicago sativa* subsp. *falcata* (L.) Arcang.**

Wild. 98HV-75; W6 21456. Collected 09/1998 in Mongolia. Latitude 50 deg. 5' 43'' N. Longitude 107 deg. 2' 51'' E. Elevation 701 m. Altenbulag Sum, Selenge Aimag, 5 km west of Ikh Dugerre Border Station. wet meadow, brown soils. Associated vegetation: *Medicago falcata*, *Leymus chinensis*, *Artemisia vulgaris*.

**PI 634091. *Trifolium lupinaster* L.**

Wild. 98HV-97; W6 21477. Collected 09/1998 in Mongolia. Latitude 50 deg.

17' 59'' N. Longitude 104 deg. 58' 51'' E. Elevation 732 m. Tushig Sum, Selenge Aimag, 10 km west of Tushig along Dzelter River. Meadow brown soil, alluvium river bottom adjacent to Dzelter River, grass-forb type. Associated vegetation: *Delphinium grandiflora*, *Elymus excelsus*, *Elymus gmelinii*, *Trisetum sibiricum*, *Artemisia laciniata*, *Geranium pratense*, *Achillea asiatica*, *Vicia amoena*.

**PI 634092. *Trifolium lupinaster* L.**

Wild. 98HV-108; W6 21488. Collected 09/1998 in Mongolia. Latitude 50 deg. 17' 19'' N. Longitude 105 deg. 0' 3'' E. Elevation 762 m. Tushig Sum, Selenge Aimag, 8 km SW of Tushig. Light texture, brown soil, upper end of small drainage. Associated vegetation: *Carex pediformis*, *Stipa grandis*, *S. baicalensis*, *Scabiosa comosa*, *Galium verum*, *Trifolium lupinaster*, *Sanguisorba officinalis*.

**PI 634093. *Trifolium lupinaster* L.**

Wild. 98HV-156; W6 21531. Collected 09/1998 in Mongolia. Latitude 50 deg. 8' 14'' N. Longitude 101 deg. 34' 36'' E. Elevation 1204 m. Eguur Sum, Hovsgol Aimag, 3 km NW of Erdenebulgan. sandy light brown soil, extensive mountain valley bottomland, upper edges in grain. Associated vegetation: *Leymus chinensis*, *Elymus nutans*, *Artemisia macrocephalus*, *A. vulgaris*, *A. scoparia*, *Trifolium lupinaster*, *Potentilla anserina*.

**PI 634094. *Trifolium repens* L.**

Wild. 98HV-55; W6 21436. Collected 09/1998 in Mongolia. Latitude 49 deg. 52' 30'' N. Longitude 107 deg. 43' 21'' E. Elevation 762 m. Huder Sum, Selenge Aimag, 30 km east of Huder. meadow, dark brown soil, Uyalga River, wide open valley bordered by birch hills. Associated vegetation: *Elytrigia gmelinii*, *Poa pratensis*, *Artemisia lucentica*, *Potentilla tanacetifolia*, *Leymus chinensis*, *Thalictrum simplex*, *T. minus*.

**PI 634095. *Trifolium lupinaster* L.**

Wild. 98HV-132; W6 21508. Collected 09/1998 in Mongolia. Latitude 49 deg. 47' 25'' N. Longitude 101 deg. 52' 33'' E. Elevation 1494 m. Tarailan Sum, Hovsgol Aimag, 30 km N of Tarailan. Open mountain meadow below larch and birch high mountain meadow, forb-Carex-Kobresia mountain meadow type, mountain brown soil. Associated vegetation: *Festuca ovina*, *Ptilagrostis mongholica*, *Helictotrichon schellianum*, *Carex schengensis*, *C. enervis*, *C. duriuscula*, *C. coriophora*, *Kobresia sibirica*, *K. bellardii*, *Parnassia palustris*, *Pedicularis resupinata*, *Agrostis trinii*, *Ranunculus japon.*

**PI 634096. *Trifolium lupinaster* L.**

Wild. 98HV-150; W6 21525. Collected 09/1998 in Mongolia. Latitude 50 deg. 7' 23'' N. Longitude 101 deg. 36' 18'' E. Elevation 1204 m. Eguur Sum, Hovsgol Aimag, 3 km NE of Erdenebulgan. Egiyn River bottom, small open meadows in stands of birch and willow, Carex-grass-forb type, meadow brown soil. Associated vegetation: *Galatella dahurica*, *Artemisia* sp., *Galium verum*, *Kobresia sibirica*, *Carex pediformis*, *Leymus chinensis*, *Schizonepeta multifida*, *Stipa sibirica*, *Heteropappus biennis*.

**PI 634097. *Trifolium repens* L.**

Wild. 98HV-38; W6 21419. Collected 09/1998 in Mongolia. Latitude 49 deg. 46' 20'' N. Longitude 107 deg. 8' 59'' E. Elevation 914 m. Huder Sum, Selenge Aimag, 30 km west of Huder. Forest site, Brown soil, Forb-grass mountain steppe. Associated vegetation: *Stipa krylovii*, *Phleum*

phleoides, Bromus inermis, Potentilla viscosa, Artemisia commutata, Agrostis sp., Elymus gmelinii, Pinus sylvestris, Betula platyphylla.

**PI 634098. Trifolium lupinaster L.**

Wild. 98HV-65; W6 21446. Collected 09/1998 in Mongolia. Latitude 49 deg. 57' 38'' N. Longitude 107 deg. 19' 31'' E. Elevation 914 m. Huder Sum, Selenge Aimag, 45 km SW of Huder. Abandoned wheat field on bench in the mountains, Mountain dark brown soil. Associated vegetation: Artemisia vulgaris, Leymus chinensis, Hieracium umbellatum, Bromus inermis, Trifolium lupinaster.

**PI 634099. Medicago sativa subsp. falcata (L.) Arcang.**

Wild. 98HV-88; W6 21468. Collected 09/1998 in Mongolia. Latitude 50 deg. 16' 34'' N. Longitude 105 deg. 6' 37'' E. Elevation 823 m. Tushig Sum, Selenge Aimag, 25 km NW of Tsagaanuur. Disturbed area along road and power line with small pine invading grassland, sandy brown soil, forb-grass type, mountain meadow, narrow mountain valley-midslope. Associated vegetation: Bromus inermis, Leymus chinensis, Sanguisorba officinalis, Medicago falcata, Elymus gmelinii, Poa pratensis, Hierochloa glabra, Geranium sibiricum.

**PI 634100. Trifolium lupinaster L.**

Wild. 98HV-112; W6 21492. Collected 09/1998 in Mongolia. Latitude 50 deg. 12' 25'' N. Longitude 105 deg. 8' 33'' E. Elevation 853 m. Tushig Sum, Selenge Aimag, 15 km SE of Tushig. Open meadow at base of short slope covered with birch and scotch pine. Associated vegetation: Artemisia laciniata, Vicia amoena, Trifolium lupinaster, Potentilla tanacetifolia, Stipa sibirica, Poa botryoides, Sanguisorba officinalis, Thalictrum squarosum, Onobrychis sibirica.

**PI 634101. Trifolium lupinaster L.**

Wild. 98HT-251; W6 21325. Collected 09/1998 in Mongolia. Latitude 49 deg. 9' 23'' N. Longitude 111 deg. 25' 16'' E. Elevation 1036 m. Daduul Sum, Henti Aimag. Stream terrace along a small tributary stream E of a larger river. Soils are sandy. Associated vegetation: Grass steppe in forest steppe.

**PI 634102. Trifolium lupinaster L.**

Wild. 98HT-262; W6 21336. Collected 09/1998 in Mongolia. Latitude 48 deg. 57' 9'' N. Longitude 111 deg. 3' 40'' E. Elevation 1036 m. Daduul Sum, Henti Aimag. Slope above valley floor. The entire area appears to have burned the previous year. Associated vegetation: Dominated by forbs released by the burn. Stipa and Bromus found on mounds. Astragalus and Melilotus are present but seeds have already been dispersed.

**PI 634103. Trifolium lupinaster L.**

Wild. 98HT-26; W6 21155. Collected 09/1998 in Mongolia. Latitude 47 deg. 58' 29'' N. Longitude 108 deg. 50' 1'' E. Elevation 1707 m. Sinkermandel Sum, Henti Aimag. Edge of wet, marshy area located along a small stream with dark sandy soils. Some rock present in the soil from alluvial deposition. Associated vegetation: Kobresia, Salix, and Filifolium.

**PI 634104. Trifolium lupinaster L.**

Wild. 98HT-61; W6 21181. Collected 09/1998 in Mongolia. Latitude 48 deg. 9' 35'' N. Longitude 109 deg. 25' 14'' E. Elevation 1524 m. Omnodelger Sum, Henti Aimag. Moderate slope with south aspect. Scattered Larix trees occur on the higher elevations of the grassland. Soil is very

gravelly and is formed from eroded granitic rock. Fire occurred at site about two years ago. Associated vegetation: Open grassland vegetation dominated by *Stipa*, *Poa*, and forbs. Forest vegetation is dominated by *Larix* and *Populus*. *Trisetum*, *Astragalus*, and *Hedysarum* are common in understory.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 634105. *Medicago sativa* subsp. *falcata* (L.) Arcang.**

Wild. UKR-99-167; W6 21817. . Collected 08/01/1999 in Krym, Ukraine. Latitude 44 deg. 47' 32'' N. Longitude 34 deg. 37' 24'' E. Elevation 300 m. Near Pryvitne off road A-294. South moderate slope.

**PI 634106. *Medicago sativa* subsp. *falcata* (L.) Arcang.**

Wild. UKR-99-264; W6 21891. . Collected 08/03/1999 in Krym, Ukraine. Latitude 45 deg. 28' 18'' N. Longitude 35 deg. 51' 18'' E. Elevation 20 m. Above Azov Sea and near Mysove on small peninsula. North slope, moderately steep, on cliff. coleccion Pompadour Vieja.

The following were donated by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States. Received 1997.

**PI 634107. *Trifolium fragiferum* L.**

Uncertain. S-16-58; W6 22222.

**PI 634108. *Trifolium hybridum* L.**

Uncertain. S-19-35; W6 22224.

**PI 634109. *Trifolium pallescens* Schreb.**

Uncertain. S-224-2; W6 22230.

**PI 634110. *Trifolium repens* L.**

Uncertain. S-35-47; W6 22238.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Stephanie Greene, USDA, ARS, National Temperate Forage Legume, Germplasm Resources Unit, Prosser, Washington 99350-9687, United States; Nikolai I. Dzyubenko, N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Auskhan Khusainov, Aral Sea Experiment Station for Plant Genetic Resources, 27 Biyeckenov Street, Chelkar Town, Kazakhstan. Received 08/2000.

- PI 634111. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-250; W6 22794. Collected 09/02/2000 in Aqtobe, Kazakhstan.  
Latitude 48 deg. 45' 12'' N. Longitude 58 deg. 32' 27'' E. Elevation 369  
m. "Trautvetter's alfalfa predominant *Medicago* at this site. Site is a  
meadow in depression, area has been grazed. Accession may be mix of  
Trautvetter's alfalfa and hybrid types", (Collector Note). Somatic  
chromosome number=16; VARIAGATED DARK BLUE (Prosser, WA., USA  
regeneration 2001); pods sickle shaped, < .5 coil, 1-3 mm wide  
(evaluation of original pod samples by S.L. Greene, 2001).
- PI 634112. *Medicago sativa* subsp. *falcata*** (L.) Arcang.  
Wild. KAZ-021; W6 22721. Collected 08/26/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 24' 32'' N. Longitude 57 deg. 27' 6'' E. Elevation 309  
m. Flower color="YELLOW-MODERATE LIGHT", (Collector Note) Somatic  
chromosome number=16; all plants MODERATELY DARK YELLOW (Prosser  
regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide  
(evaluation of original pod sample by S.L. Greene, 2001).
- PI 634113. *Medicago sativa* nothosubsp. *varia*** (Martyn) Arcang.  
Wild. KAZ-082; W6 22741. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 0' 51'' N. Longitude 58 deg. 34' 39'' E. Elevation 326  
m. Somatic chromosome number=32; CREAM with 10% yellow-flowered plants  
(Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5  
coil, 1-3 mm wide, some .5 to 1.5 loose coils (evaluation of original  
pod samples by S.L. Greene, 2001).
- PI 634114. *Medicago sativa* subsp. *falcata*** (L.) Arcang.  
Wild. KAZ-156; W6 22761. Collected 08/29/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 27' 6'' N. Longitude 58 deg. 37' 14'' E. Elevation 345  
m. "*Medicago* growing in grasses, in a very competitive situation, may  
have good seedling vigor", (Collector Note). Somatic chromosome  
number=16, all plants MODERATELY DARK YELLOW (Prosser, WA., USA  
regeneration 2001). Pods coiled in .5 to 2.5 loose coils (evaluation of  
original pod samples by S.L. Greene, 2001).
- PI 634115. *Medicago sativa* nothosubsp. *varia*** (Martyn) Arcang.  
Wild. KAZ-219; W6 22784. Collected 09/01/2000 in Aqtobe, Kazakhstan.  
Latitude 48 deg. 45' 41'' N. Longitude 58 deg. 43' 41'' E. Elevation 477  
m. "Possible hybrid between *M. sativa* ssp. *falcata* and Trautvetter's  
alfalfa. Pods sickle-shaped", (Collector Note). Somatic chromosome  
number=32; VARIGATED LIGHT BLUE with 30% plants yellow-flowered  
(Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5  
coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene,  
2001).
- PI 634116. *Trifolium repens*** L.  
Wild. KAZ-334; W6 22835. Collected 09/06/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 49' 28'' N. Longitude 56 deg. 53' 27'' E. Elevation 271  
m.
- PI 634117. *Medicago sativa* subsp. *falcata*** (L.) Arcang.  
Wild. KAZ-353; W6 22846. Collected 09/08/2000 in Aqtobe, Kazakhstan.  
Latitude 50 deg. 39' 38'' N. Longitude 56 deg. 38' 42'' E. Elevation 188  
m. "Very common. Almost pure stand at this site." (Collector Note) Pods  
sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod  
samples by S.L. Greene, 2001).

- PI 634118. *Medicago sativa* subsp. *falcata*** (L.) Arcang.  
 Wild. KAZ-403; W6 22868. Collected 09/10/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 17' 55'' N. Longitude 56 deg. 5' 20'' E. Elevation 270  
 m. "M. sativa ssp. varia dominant at this site. M. sativa ssp. falcata  
 at this site had relatively thick pod shape compared to other M.  
 falcata's we have seen on trip", (Collector Note). Chromosome number  
 2n=16; all plants MODERATELY DARK YELLOW (Prosser, WA., USA  
 regeneration 2001).
- PI 634119. *Medicago sativa* subsp. *caerulea*** (Less. ex Ledeb.) Schmalh.  
 Wild. KAZ-127; W6 22753. Collected 08/29/2000 in Aqtobe, Kazakhstan.  
 Latitude 49 deg. 16' 35'' N. Longitude 58 deg. 33' 22'' E. Elevation 368  
 m. Flowers LIGHT PURPLE", (Collector Note) Pods coiled in 1 to 2.5  
 loose coils (evaluation of original pod samples by S.L. Greene, 2001);  
 all plants MODERATELY DARK PURPLE (Prosser, WA., USA regeneration 2001)  
 .
- PI 634120. *Medicago sativa* subsp. *falcata*** (L.) Arcang.  
 Wild. KAZ-203; W6 22778. Collected 09/01/2000 in Aqtobe, Kazakhstan.  
 Latitude 49 deg. 2' 59'' N. Longitude 59 deg. 3' 6'' E. Elevation 317 m.  
 "Medicago falcata predominant taxa at this site (very thick stand). Some  
 purple/yellow hybrids observed, may also be trautvetter's alfalfa,  
 although no flowers evident (past maturity). M. falcata commonly grows  
 in seasonally moist (spring) depressions", (Collector Note) Somatic  
 chromosome number=16; all plants MODERATELY DARK YELLOW (Prosser, WA.,  
 USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide  
 (evaluation of original pod samples by S.L.
- PI 634121. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
 Wild. KAZ-248; W6 22793. Collected 09/02/2000 in Aqtobe, Kazakhstan.  
 Latitude 48 deg. 45' 12'' N. Longitude 58 deg. 32' 27'' E. Elevation 369  
 m. "This accession is distinguished by having darker pods than average  
 type observed", (Collector Note). Somatic chromosome number=16; VARIGATED  
 LIGHT YELLOW GREEN (Prosser, WA., USA regeneration 2001) Pods sickle  
 shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by  
 S.L. Greene, 2001).
- PI 634122. *Medicago sativa* subsp. *caerulea*** (Less. ex Ledeb.) Schmalh.  
 Wild. KAZ-267; W6 22803. Collected 09/03/2000 in Aqtobe, Kazakhstan.  
 Latitude 48 deg. 34' 37'' N. Longitude 57 deg. 48' 32'' E. Elevation 188  
 m. "One plant seen and sampled (may be selfed)", (Collector  
 Note). Somatic chromosome number=16, all plants MODERATELY DARK PURPLE  
 (Prosser, WA., USA regeneration 2001). Pods coiled 1.5-4.0 tight coils,  
 2-5 mm dia (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634123. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
 Wild. KAZ-268; W6 22804. Collected 09/03/2000 in Aqtobe, Kazakhstan.  
 Latitude 48 deg. 34' 45'' N. Longitude 57 deg. 46' 10'' E. Elevation 188  
 m. Somatic chromosome number=16; MODERATELY DARK PURPLE with 10% plants  
 yellow-greenish flowers (Prosser, WA., USA regeneration 2001). 0.5 to 1  
 loose coils to sickle shaped (evaluation of original pod samples by S.L.  
 Greene, 2001).
- PI 634124. *Medicago sativa* nothosubsp. *varia*** (Martyn) Arcang.  
 Wild. KAZ-273; W6 22805. Collected 09/03/2000 in Aqtobe, Kazakhstan.  
 Latitude 48 deg. 35' 9'' N. Longitude 57 deg. 42' 30'' E. Elevation 200

m. "Probably a hybrid form. Flowers yellow-white", (Collector Note). Somatic chromosome number= 32; MODERATELY DARK PURPLE with 10% plants yellow-green flower color (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

- PI 634125. *Medicago sativa* nothosubsp. *varia*** (Martyn) Arcang.  
Wild. KAZ-274; W6 22806. Collected 09/03/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 35' 9'' N. Longitude 57 deg. 42' 30'' E. Elevation 200 m. "Example of Trautvetter's alfalfa. Flower color blue, pods sickle-shaped. Approximately 6 plants sampled out of 10-15 plants observed", (Collector Note). Somatic chromosome number=32; VARIGATED LIGHT BLUE (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634126. *Medicago sativa* subsp. *caerulea*** (Less. ex Ledeb.) Schmalh.  
Wild. KAZ-276; W6 22808. Collected 09/03/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 31' 2'' N. Longitude 57 deg. 28' 39'' E. Elevation 199 m. Pods coiled 1.5-4.0 tight coils, 2-5 mm dia (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634127. *Medicago sativa* subsp. *falcata*** (L.) Arcang.  
Wild. KAZ-282; W6 22810. Collected 09/03/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 34' 19'' N. Longitude 57 deg. 19' 6'' E. Elevation 230 m. "Four out of four plants were collected", (Collector Note). Somatic chromosome number=32; all plants MODERATELY DARK YELLOW (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634128. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-277; W6 22812. Collected 09/03/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 34' 19'' N. Longitude 57 deg. 19' 6'' E. Elevation 230 m. Somatic chromosome number=16, VERY LIGHT YELLOW with 10% blue-flowered plants (Prosser, WA., USA regeneration 2001) .5 to 2.5 loose coils to sickle shaped (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634129. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-279; W6 22813. Collected 09/03/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 34' 19'' N. Longitude 57 deg. 19' 6'' E. Elevation 230 m. "Single plant found and sampled (found along roadside verge)", (Collector Note) Somatic chromosome number=16; VERY LIGHT YELLOW with 40% blue-flowered plants (Prosser, WA., USA regeneration 2001). .5 to 2.5 loose coils to sickle shaped (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634130. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-286; W6 22816. Collected 09/03/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 43' 23'' N. Longitude 57 deg. 5' 55'' E. Elevation 193 m. "PURPLE-MODERATELY DARK flowers. Pods too small to be Trautvetter's alfalfa and no evidence of hybridization based on flower color", (Collector Note). Somatic chromosome number=16; VARIGATED LIGHT YELLOW GREEN with 10% blue-flowered plants. .5 to 2.5 loose coils to sickle shaped (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634131. *Medicago sativa* subsp. *falcata*** (L.) Arcang.

Wild. KAZ-287; W6 22817. Collected 09/03/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 43' 23'' N. Longitude 57 deg. 5' 55'' E. Elevation 193 m. "Very competitive form; growing in a pure stand of *Elymus giganteum*. Plants were large, maybe tetraploid; flower color from very yellow to light yellow. Predominate *Medicago* type although Trautvetter's alfalfa seen infrequently (2 plants)", (Collector Note). Somatic chromosome number=16; All plants MODERATELY DARK YELLOW (Prosser, WA., USA r Pods sickle shaped, < .5 coil, 1-3 mm, some almost full circle (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634132. *Medicago sativa nothosubsp. varia* (Martyn) Arcang.**

Wild. KAZ-291; W6 22818. Collected 09/04/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 43' 23'' N. Longitude 57 deg. 5' 55'' E. Elevation 193 m. "Early maturing type, many ripe pods sampled all from a single very vigorous plant", (Collector Note). Somatic chromosome number=32; VARIGATED LIGHT YELLOW GREEN with 20% blue flowered type (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634133. *Medicago sativa subsp. falcata* (L.) Arcang.**

Wild. KAZ-292; W6 22819. Collected 09/04/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 43' 23'' N. Longitude 57 deg. 5' 55'' E. Elevation 193 m. "From dense *Elymas* stands in transition dry zones", (Collector Note). Somatic chromosome number=16; all plants yellow-flowered (Prosser, WA., USA regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634134. *Medicago sativa subsp. falcata* (L.) Arcang.**

Wild. KAZ-300; W6 22821. Collected 09/04/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 45' 2'' N. Longitude 57 deg. 5' 7'' E. Elevation 206 m. "Plants leafy, coarse textured and had relatively short internode length compared to other *M. falcata* observed on trip. Site consisted of 99 % *M. falcata* and 1 % blue-flowered types, "(Collector Note). Chromosome number 2n=16; all plants MODERATELY DARK YELLOW (Prosser, WA., USA regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634135. *Medicago sativa subsp. falcata* (L.) Arcang.**

Wild. KAZ-303; W6 22823. Collected 09/04/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 56' 31'' N. Longitude 57 deg. 6' 45'' E. Elevation 256 m. "Flower color: YELLOW-MODERATE LIGHT", (Collector Notes). Chromosome number 2n=16. Flower color during 2001 regeneration at Prosser, WA: VARIGATED LIGHT YELLOW GREEN, NO COLOR MIX. Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634136. *Medicago sativa subsp. caerulea* (Less. ex Ledeb.) Schmalh.**

Wild. KAZ-310; W6 22824. Collected 09/04/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 10' 30'' N. Longitude 56 deg. 52' 32'' E. Elevation 281 m. "Only *medicago* species seen abundant. Wide range of blue flower color. Some question if Trautvetter's alfalfa present", (Collector Note). Somatic chromosome number=16, All plants DARK PURPLE. Pods coiled in .5 to 2.5 loose coils (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634137. *Trifolium fragiferum* L.**

Wild. KAZ-314; W6 22825. Collected 09/05/2000 in Aqtobe, Kazakhstan.

Latitude 49 deg. 14' 14'' N. Longitude 56 deg. 30' 40'' E. Elevation 164 m.

- PI 634138. *Medicago sativa* subsp. *caerulea*** (Less. ex Ledeb.) Schmalh.  
Wild. KAZ-318; W6 22827. Collected 09/05/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 16' 38'' N. Longitude 56 deg. 30' 32'' E. Elevation 264 m. "This taxon of *Medicago* was the only one observed at this site, except for a single *M. sativa falcata* observed along the roadside", (Collector Note). Chromosome number  $2n=16$ . Flower color during 2001 regeneration at Prosser, WA: all plants DARK PURPLE. Pods coiled 1.5-4.0 tight coils, 2-5 mm dia (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634139. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-321; W6 22828. Collected 09/05/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 35' 13'' N. Longitude 56 deg. 31' 5'' E. Elevation 280 m. Somatic chromosome number=16; VERY LIGHT YELLOW with 10% blue-flowered plants (Prosser, WA., USA regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634140. *Medicago sativa* nothosubsp. *varia*** (Martyn) Arcang.  
Wild. KAZ-331; W6 22831. Collected 09/05/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 41' 34'' N. Longitude 56 deg. 32' 23'' E. Elevation 255 m. Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634141. *Trifolium fragiferum* L.**  
Wild. KAZ-333; W6 22832. Collected 09/06/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 49' 28'' N. Longitude 56 deg. 53' 27'' E. Elevation 271 m.
- PI 634142. *Medicago sativa* L. subsp. *sativa***  
Wild. KAZ-336; W6 22836. Collected 09/06/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 54' 40'' N. Longitude 56 deg. 58' 35'' E. Elevation 302 m. "This was the predominate *Medicago* species present. *M. sativa falcata* also observed at site but less frequent," (Collector Note). Somatic chromosome number=32; all plants DARK PURPLE (Prosser, WA., USA regeneration 2001) Pods coiled, 2-5 tight coils, 5-9 mm dia (evaluation of original pod samples by S.L. Greene, 2001)..
- PI 634143. *Medicago sativa* subsp. *falcata*** (L.) Arcang.  
Wild. KAZ-337; W6 22837. Collected 09/06/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 54' 40'' N. Longitude 56 deg. 58' 35'' E. Elevation 302 m. "Had few ripe pods", (Collector Note). Somatic chromosome number=32; all plants ORANGE YELLOW (Prosser, WA., USA regeneration 2001) (evaluation of original pod samples by S.L. Greene, 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide.
- PI 634144. *Medicago sativa* subsp. *falcata*** (L.) Arcang.  
Wild. KAZ-339; W6 22838. Collected 09/06/2000 in Aqtobe, Kazakhstan.  
Latitude 50 deg. 9' 3'' N. Longitude 56 deg. 58' 35'' E. Elevation 332 m. "Most seed came from two plants", (Collector Note). Somatic chromosome number=32; all plants MODERATELY DARK YELLOW (Prosser, WA., USA regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Green2001).

- PI 634145. *Medicago sativa* L. subsp. *sativa***  
 Wild. KAZ-343; W6 22841. Collected 09/08/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 9' 3'' N. Longitude 56 deg. 58' 35'' E. Elevation 332  
 m. "May be hybrid form", (Collector Note). Somatic chromosome  
 number=32, all plants DARK PURPLE (Prosser, WA., USA regeneration 2001)  
 Pods coiled, 2-5 tight coils, 5-9 mm dia. (evaluation of original pod  
 samples by S.L. Greene, 2001).
- PI 634146. *Medicago sativa* nothosubsp. *hemicycla* (Grossh.) C. R. Gunn**  
 Wild. KAZ-348; W6 22844. Collected 09/08/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 34' 38'' N. Longitude 56 deg. 48' 1'' E. Elevation 200  
 m. "This *Medicago* taxa only one evident at this site", (Collector Note)  
 Somatic chromosome number=16; VARIGATED.LIGHT YELLOW GREEN with 10%  
 blue-flowered plants(Prosser, WA., USA regeneration 2001). Pods sickle  
 shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by  
 S.L. Greene, 2001).
- PI 634147. *Medicago sativa* subsp. *falcata* (L.) Arcang.**  
 Wild. KAZ-354; W6 22847. Collected 09/08/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 39' 59'' N. Longitude 56 deg. 28' 53'' E. Elevation 211  
 m. "There may be some *M. sativa varia* in this sample," (Collector  
 Note). Somatic chromosome number=16, all plants MODERATELY DARK YELLOW  
 (Prosser, WA., USA regeneration 2001) Pods curved to sickle shaped, 2-3  
 mm wide, above ave. length, some .5 to 2.5 loose coils (evaluation of  
 original pod samples by S.L. Greene, 2001).
- PI 634148. *Trifolium repens* L.**  
 Wild. KAZ-362; W6 22854. Collected 09/09/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 33' 20'' N. Longitude 56 deg. 15' 49'' E. Elevation 259  
 m.
- PI 634149. *Medicago sativa* nothosubsp. *hemicycla* (Grossh.) C. R. Gunn**  
 Wild. KAZ-374; W6 22856. Collected 09/09/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 31' 8'' N. Longitude 55 deg. 56' 59'' E. Elevation 260  
 m. "Multi-colored flowers in population, from dark purple to almost  
 white. Also diversity in pod shape, from crescent to coiled", (Collector  
 Note). Somatic chromosome number=16. Flower color during 2001  
 regeneration at Prosser, WA: All plants MODERATELY DARK PURPLE. .5 to  
 2.5 loose coils to sickle shaped (evaluation of original pod samples by  
 S.L. Greene, 2001).
- PI 634150. *Medicago sativa* nothosubsp. *hemicycla* (Grossh.) C. R. Gunn**  
 Wild. KAZ-387; W6 22864. Collected 09/10/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 14' 51'' N. Longitude 55 deg. 47' 51'' E. Elevation 211  
 m.
- PI 634151. *Trifolium fragiferum* L.**  
 Wild. KAZ-395; W6 22865. Collected 09/10/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 7' 12'' N. Longitude 55 deg. 47' 25'' E. Elevation 161  
 m.
- PI 634152. *Trifolium fragiferum* L.**  
 Wild. KAZ-396; W6 22866. Collected 09/10/2000 in Aqtobe, Kazakhstan.  
 Latitude 50 deg. 9' 48'' N. Longitude 55 deg. 51' 24'' E. Elevation 171  
 m.
- PI 634153. *Medicago sativa* nothosubsp. *varia* (Martyn) Arcang.**

Wild. KAZ-404; W6 22870. Collected 09/10/2000 in Aqtobe, Kazakhstan. Latitude 50 deg. 17' 55'' N. Longitude 56 deg. 5' 20'' E. Elevation 270 m. "M. sativa ssp. varia dominant Medicago at this site. M. falcata also observed, but less frequently", (Collector Note). Chromosome number 2n=32; all plants DARK PURPLE (Prosser, WA., USA regeneration 2001) Pods coiled in .5 to 2.5 loose coils (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634154. *Medicago sativa nothosubsp. varia* (Martyn) Arcang.**

Wild. KAZ-411; W6 22871. Collected 09/11/2000 in Aqtobe, Kazakhstan. Latitude 50 deg. 17' 55'' N. Longitude 56 deg. 5' 20'' E. Elevation 309 m. "Some evidence of grazing. Only purple and blue flowered perennial Medicago taxa observed at this site", (Collector Notes). Somatic chromosome number=32; all plants LIGHT PURPLE (Prosser, WA., USA regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide, and coiled in .5 to 2.5 loose coils (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634155. *Trifolium fragiferum* L.**

Wild. KAZ-422; W6 22872. Collected 09/11/2000 in Aqtobe, Kazakhstan. Latitude 50 deg. 12' 28'' N. Longitude 56 deg. 28' 18'' E. Elevation 217 m.

**PI 634156. *Trifolium pratense* L.**

Wild. KAZ-420; W6 22874. Collected 09/11/2000 in Aqtobe, Kazakhstan. Latitude 50 deg. 12' 28'' N. Longitude 56 deg. 28' 18'' E. Elevation 217 m.

**PI 634157. *Trifolium repens* L.**

Wild. KAZ-418; W6 22875. Collected 09/11/2000 in Aqtobe, Kazakhstan. Latitude 50 deg. 12' 28'' N. Longitude 56 deg. 28' 18'' E. Elevation 217 m.

**PI 634158. *Medicago sativa subsp. falcata* (L.) Arcang.**

Wild. KAZ-001; W6 22716. Collected 08/26/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 29' 6'' N. Longitude 57 deg. 13' 33'' E. Somatic chromosome= 32; all flowers MODERATELY DARK YELLOW; pods larger (=3 mm wide) and darker brown than others falcata samples on trip; pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pods by S.L.

**PI 634159. *Medicago sativa subsp. falcata* (L.) Arcang.**

Wild. KAZ-009; W6 22717. Collected 08/26/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 46' 10'' N. Longitude 57 deg. 19' 34'' E. Elevation 272 m. Flower color YELLOW-MODERATE LIGHT, (Collector Note). Somatic chromosomes=16; all plants MODERATELY DARK YELLOW (Prosser regeneration 2001); pods width larger than average Kazakhstan sample (width= 3 mm), pods sickle shaped, < .5 coil, 1-3 mm wi(evaluation of original pod sample by S.L. Greene, 2001).

**PI 634160. *Medicago sativa nothosubsp. hemicycla* (Grossh.) C. R. Gunn**

Wild. KAZ-005; W6 22719. Collected 08/26/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 46' 10'' N. Longitude 57 deg. 19' 34'' E. Elevation 272 m. "Flower color blue", (Collector Note); Somatic chromosome number=16; VARIGATED LIGHT YELLOW GREEN with 20% blue-flowered plants (Prosser regeneration 2001); .5 to 2.5 loose coils, sickle shaped (evaluation of original pod sample by S.L. Greene, 2001).

- PI 634161. *Medicago sativa nothosubsp. varia*** (Martyn) Arcang.  
Wild. KAZ-016; W6 22720. Collected 08/26/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 24' 32'' N. Longitude 57 deg. 27' 6'' E. Elevation 309  
m. Somatic chromosome number=32, all plants MODERATELY DARK YELLOW  
(Prosser regeneration 2001); pods sickle shaped, < .5 coil, 1-3 mm  
wide (evaluation of original pod sample by S.L. Greene, 2001).
- PI 634162. *Medicago sativa subsp. falcata*** (L.) Arcang.  
Wild. KAZ-033; W6 22723. Collected 08/26/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 13' 3'' N. Longitude 57 deg. 39' 7'' E. Elevation 248  
m.
- PI 634163. *Medicago sativa nothosubsp. hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-032; W6 22725. Collected 08/26/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 13' 3'' N. Longitude 57 deg. 39' 7'' E. Elevation 248  
m. Somatic chromosome number=16, VARIAGATED LIGHT YELLOW GREEN with 10%  
blue-flowered plants (Prosser, WA., USA regeneration 2001). .5 to 2.5  
loose coils to sickle shaped (evaluation of original pod sample by S.L.  
Greene, 2001).
- PI 634164. *Medicago sativa nothosubsp. varia*** (Martyn) Arcang.  
Wild. KAZ-040; W6 22728. Collected 08/27/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 7' 7'' N. Longitude 57 deg. 47' 37'' E. Elevation 235  
m. "This site had distinct populations of *M. sativa* ssp. *falcata*,  
Trautvetter alfalfa, hybrid forms and maybe tetraploid *M. falcata* (this  
was a plant with larger pods)", (Collector Note). Somatic chromosome  
number=32; DARK PURPLE with 15 % yellow-flowered plants (Prosser, WA.,  
USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide  
(evaluation of original pod sample by S.L. Greene, 2001).
- PI 634165. *Medicago sativa nothosubsp. varia*** (Martyn) Arcang.  
Wild. KAZ-075; W6 22729. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 48 deg. 44' 22'' N. Longitude 58 deg. 33' 34'' E. Elevation 410  
m. "Site contained approximately 60% Trautvetter's alfalfa and 40% *M.*  
*sativa* ssp. *falcata* populations", (Collector Note). Somatic chromosome  
number=32; CREAM with 10% blue flowered plants (Prosser, WA., USA  
regeneration 2001) Pods sickle shaped, < .coil, 1-3 mm wide and .5 to  
1.5 loose coils (evaluation of original pod sample by S.L. Greene,  
2001).
- PI 634166. *Medicago sativa nothosubsp. hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-055; W6 22732. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 48 deg. 48' 32'' N. Longitude 58 deg. 31' 29'' E. Elevation 335  
m. "Only saw this *Medicago* taxon at this site, " (Collector Note).  
Somatic chromosome number=16;VARIGATED.LIGHT YELLOW GREEN (Prosser, WA.,  
USA regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide  
(evaluation of original pod sample by S.L.Greene, 2001).
- PI 634167. *Medicago sativa nothosubsp. varia*** (Martyn) Arcang.  
Wild. KAZ-058; W6 22733. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 48 deg. 49' 43'' N. Longitude 58 deg. 32' 11'' E. Elevation 362  
m. "Only *Medicago* taxon present at this site", (Collector Note).  
Somatic chromosome number=32; VARIGATED LIGHT BLUE GREEN, 10%  
blue-flowered plants (Prosser, WA., USA regeneration 2001). Pods coiled  
in .5 to 2.5 loose coils, and sickle shaped (evaluation of original pod  
sample by S.L. Greene, 2001).

- PI 634168. *Medicago sativa* nothosubsp. *varia*** (Martyn) Arcang.  
Wild. KAZ-065; W6 22734. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 48 deg. 49' 31'' N. Longitude 58 deg. 32' 8'' E. Elevation 348  
m. Somatic chromosome number=32; VARIGATED LIGHT YELLOW GREEN with 10%  
plants blue-flowered (Prosser, WA., USA regeneration 2001); Pods sickle  
shaped, < .5 coil, 1-3 mm wide, some full circle (evaluation of  
original pod sample by S.L. Greene, 2001).
- PI 634169. *Medicago sativa* L. subsp. *sativa***  
Wild. KAZ-064; W6 22735. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 48 deg. 49' 31'' N. Longitude 58 deg. 32' 8'' E. Elevation 348  
m. Somatic chromosome number=32; all plants LIGHT PURPLE (Prosser, WA.,  
USA regeneration 2001) Pods coiled, 2-5 tight coils, 5-9 mm dia.  
(evaluation of original pod sample by S.L. Greene, 2001).
- PI 634170. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-071; W6 22737. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 48 deg. 54' 4'' N. Longitude 58 deg. 34' 25'' E. Elevation 372  
m. "Pods sickle-shaped, not coiled", (Collector Note) all plants VERY  
LIGHT PURPLE (Prosser, WA., USA regeneration 2001) Pods sickle shaped,  
< .5 coil, 1-3 mm wide (evaluation of original pod sample by S.L.  
Greene, 2001).
- PI 634171. *Medicago sativa* nothosubsp. *varia*** (Martyn) Arcang.  
Wild. KAZ-079; W6 22739. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 0' 51'' N. Longitude 58 deg. 34' 39'' E. Elevation 326  
m. "Large pod type", (Collector Note). Somatic chromosome number=32;  
VARIGATED LIGHT YELLOW GREEN (Prosser, WA., USA regeneration 2001) .5  
to 1.5 loose coils to sickle shaped (evaluation of original pod samples  
by S.L. Greene, 2001).
- PI 634172. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-080; W6 22740. Collected 08/28/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 0' 51'' N. Longitude 58 deg. 34' 39'' E. Elevation 326  
m. Somatic chromosome number=16, all plants had VARIGATED LIGHT YELLOW  
GREEN flowers (Prosser, WA., USA regeneration 2001) Pods sickle  
shaped, < .5 coil, 3 mm wide (evaluation of original pod samples by  
S.L. Greene, 2001).
- PI 634173. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-094; W6 22744. Collected 08/29/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 9' 55'' N. Longitude 58 deg. 41' 8'' E. Elevation 403  
m. An example of Trautvetter's alfalfa (Collector Note, N. Dzubenko).  
Somatic chromosome number=16, MODERATELY DARK PURPLE with 30 %  
yellow-flowered plants (Prosser, WA., USA regeneration 2001). Pods  
coiled in .5 to 2.5 loose coils, small (evaluation of original pod  
samples by S.L. Greene, 2001).
- PI 634174. *Medicago sativa* subsp. *caerulea*** (Less. ex Ledeb.) Schmalh.  
Wild. KAZ-105; W6 22745. Collected 08/29/2000 in Aqtobe, Kazakhstan.  
Latitude 49 deg. 9' 55'' N. Longitude 58 deg. 41' 8'' E. Elevation 403  
m. Somatic chromosome number=16, all plants MODERATELY DARK PURPLE  
(Prosser, WA., USA regeneration 2001) Pods coiled 1.5-4.0 tight coils,  
2-5 mm dia (evaluation of original pod samples by S.L. Greene, 2001).
- PI 634175. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn  
Wild. KAZ-115; W6 22750. Collected 08/29/2000 in Aqtobe, Kazakhstan.

Latitude 49 deg. 14' 13'' N. Longitude 58 deg. 34' 58'' E. Elevation 330 m. "Sampled 100% of population", (Collector Note). Somatic chromosome number=16; VARIGATED LIGHT YELLOW GREEN (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634176. *Medicago sativa* subsp. *caerulea*** (Less. ex Ledeb.) Schmalh. Wild. KAZ-123; W6 22751. Collected 08/29/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 16' 35'' N. Longitude 58 deg. 33' 22'' E. Elevation 368 m. At this site the predominant medicago is *M. varia* and/or *caerulea* types. Somatic chromosome number=16; all plants MODERATELY DARK PURPLE (Prosser, WA., USA regeneration 2001) Pods coiled 1.5-4.0 tight coils, 2-5 mm dia (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634177. *Medicago sativa* nothosubsp. *varia*** (Martyn) Arcang. Wild. KAZ-125; W6 22752. Collected 08/29/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 16' 35'' N. Longitude 58 deg. 33' 22'' E. Elevation 368 m. "No hybrids noticed in this population," (Collector Note). Somatic chromosome number=32, all plants CREAM (Prosser, WA., USA regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide, some full circle (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634178. *Medicago sativa* subsp. *caerulea*** (Less. ex Ledeb.) Schmalh. Wild. KAZ-124; W6 22754. Collected 08/29/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 16' 35'' N. Longitude 58 deg. 33' 22'' E. Elevation 368 m. "Very small plant, purple pods, high seed yield, distinct ecotype, maybe of saline conditions. Distinct from other types", (Collector Note); Somatic chromosome number=16, all plants MODERATELY DARK PURPLE (Prosser, WA., USA regeneration 2001). Pods coiled 1.5-4.0 tight coils, 2-5 mm dia, some sickle shaped (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634179. *Medicago sativa* nothosubsp. *hemicycla*** (Grossh.) C. R. Gunn Wild. KAZ-143; W6 22757. Collected 08/30/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 24' 47'' N. Longitude 58 deg. 39' 19'' E. Elevation 350 m. "Possible hybrid between *M. falcata* and *Trautvetteri* alfalfa. Plants have blue/purple on buds although open to yellow-but lighter yellow than *falcata*. Generally pods are larger and more abundant", (Collector Note) Somatic chromosome number=16; VARIGATED LIGHT YELLOW GREEN Pods sickle shaped, < .5 coil, 1-3 mm wide (Prosser, WA., USA regeneration 2001)

**PI 634180. *Medicago sativa* subsp. *falcata*** (L.) Arcang. Wild. KAZ-145; W6 22758. Collected 08/30/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 24' 47'' N. Longitude 58 deg. 39' 19'' E. Elevation 350 m. "No blue evident in buds or flowers. Flowers very yellow, falcate pod, growing in sandy soil. At site approximately 50% *M. falcata*, 40% hybrid forms and 10% *M. trautvetteri*-types", (Collector Notes) Somatic chromosome number=16; all plants MODERATELY DARK YELLOW (Prosser, WA., USA regeneration 2001) Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634181. *Medicago sativa* subsp. *falcata*** (L.) Arcang. Wild. KAZ-171; W6 22768. Collected 08/31/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 34' 28'' N. Longitude 58 deg. 59' 10'' E. Elevation 390 m. " [Flower color=] YELLOW-MOD. LIGHT. *M. sativa* ssp. *falcata* dominant, some hybrid types observed but rarely. Did not observe *Trautvetteri*'s

alfalfa. Evidence of grazing at site", (Collector Note). Somatic chromosome number=16; all plants MODERATELY DARK YELLOW (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L.

**PI 634182. *Medicago sativa* subsp. *falcata* (L.) Arcang.**

Wild. KAZ-182; W6 22769. Collected 08/31/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 31' 27'' N. Longitude 59 deg. 4' 23'' E. Elevation 385 m. "M. sativa ssp. falcata predominate *Medicago* taxa at this site. No Trautvetter's alfalfa observed. This accession was a more wild type, having smaller pods, prostrate habit", (Collector Note). Somatic chromosome number=32; all plants ORANGE YELLOW (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634183. *Medicago sativa* subsp. *falcata* (L.) Arcang.**

Wild. KAZ-187; W6 22773. Collected 09/01/2000 in Aqtobe, Kazakhstan. Latitude 49 deg. 18' 51'' N. Longitude 59 deg. 3' 34'' E. Elevation 371 m. "M. sativa ssp. falcata predominant *Medicago* species at site", (Collector Note). All plants MODERATELY DARK YELLOW (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Green2001).

**PI 634184. *Medicago sativa* nothosubsp. *hemicycla* (Grossh.) C. R. Gunn**

Wild. KAZ-226; W6 22786. Collected 09/02/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 43' 22'' N. Longitude 58 deg. 42' 19'' E. Elevation 372 m. "Trautvetter's alfalfa dominant at this site. Hybrids also observed, but less frequently (Collector Note). Somatic chromosome number=16; VARIATED, LIGHT YELLOW GREEN with 10% blue-flowered plants (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634185. *Medicago sativa* nothosubsp. *hemicycla* (Grossh.) C. R. Gunn**

Wild. KAZ-227; W6 22787. Collected 09/02/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 43' 22'' N. Longitude 58 deg. 42' 19'' E. Elevation 372 m. Somatic chromosome number=16; VARIATED LIGHT BLUE and GREENS (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634186. *Medicago sativa* nothosubsp. *varia* (Martyn) Arcang.**

Wild. KAZ-246; W6 22789. Collected 09/02/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 43' 57'' N. Longitude 58 deg. 34' 32'' E. Elevation 440 m. Somatic chromosome number=32, VARIATED LIGHT YELLOW GREEN with 10% blue-flowered plants (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634187. *Medicago sativa* nothosubsp. *varia* (Martyn) Arcang.**

Wild. KAZ-247; W6 22792. Collected 09/02/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 43' 57'' N. Longitude 58 deg. 34' 32'' E. Elevation 440 m. "Example of Trautvetter's alfalfa. Flowers blue, pods sickle-shape. This accession was notable for having red pods", (Collector Note). Somatic chromosome number=32; MODERATELY DARK PURPLE with 10% plants yellow-flowered (Prosser, WA., USA regeneration 2001).

**PI 634188. *Medicago sativa* nothosubsp. *varia* (Martyn) Arcang.**

Wild. KAZ-252; W6 22797. Collected 09/02/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 49' 19'' N. Longitude 58 deg. 5' 11'' E. Elevation 220 m. "Example of Trautvetter's alfalfa. Flowers blue, pods sickle-shape", (Collector Note) Somatic chromosome number=32; VARIGATED LIGHT BLUE with 10% plants yellow-flowered and 10% plants green-flowered (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

**PI 634189. *Medicago sativa nothosubsp. varia* (Martyn) Arcang.**

Wild. KAZ-288; W6 22798. Collected 09/02/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 38' 58'' N. Longitude 57 deg. 55' 40'' E. Elevation 199 m. "Trautvetter's alfalfa collected along the Emba river had generally larger plants and pods than types collected in the Mugoary Mountains. Trautvetter-type predominant *Medicago* at this site. Pods sickle-shaped and some had slight coil. Hybrid types were also observed and sampled. Some grazing was evident at this site", (Collector Notes). Somatic chromosome number=32; VARIGATED DARK BLUE with 10% yellow-flowered plants (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3mm wide, some full circle (evaluation of original pod samples b.

**PI 634190. *Medicago sativa nothosubsp. varia* (Martyn) Arcang.**

Wild. KAZ-262; W6 22801. Collected 09/03/2000 in Aqtobe, Kazakhstan. Latitude 48 deg. 35' 6'' N. Longitude 57 deg. 50' 17'' E. Elevation 188 m. Only one plant observed at site", (Collector Note) Somatic chromosome number=32; VERY LIGHT PURPLE with 10% plants yellow-flowered (Prosser, WA., USA regeneration 2001). Pods sickle shaped, < .5 coil, 1-3 mm wide (evaluation of original pod samples by S.L. Greene, 2001).

The following were donated by Richard R. Smith, USDA, ARS, U.S. Dairy Forage Research Center, University of Wisconsin, Madison, Wisconsin 53706, United States. Received 07/25/1997.

**PI 634191. *Trifolium velebiticum* Degen**

Wild. Wisc Acc: Act 533; Yugo# 411241222; W6 23364. Collected 1990 in Yugoslavia. Latitude 44 deg. 45' N. Longitude 15 deg. 16' E. Collected near Selo Pecani. level area, loam soil, moderate drainage.

The following were collected by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Larry K. Holzworth, USDA-NRCS State Office, Federal Bldg., Room 443, 10 E. Babcock, Bozeman, Montana 59715-4704, United States; Gu Anlin, Chinese Academy of Agricultural Sciences, Grassland Research Institute, Range Ecology & Management, Huhhot, Nei Monggol 010010, China; Yi Jin, Inner Mongolia Agriculture University, Research Institute of Herbage physiology & Biology, Department of Agricultural Science Inner Mongolia, Huhhot, Nei Monggol 010018, China; Daniel J Miller, 5235 Western Avenue NW, Washington, District of Columbia 20015, United States. Received 06/18/2001.

**PI 634192. *Trifolium repens* L.**

Wild. TP00-48-178; W6 23637. Collected 09/09/2000 in Xizang, China. Latitude 29 deg. 59' 35'' N. Longitude 101 deg. 53' 1'' E. Elevation 3110 m. 10 km SE of Kangding, Sichuan Province. Field waste margin next to road, horse bean field SOIL:Gravelly loam SLOPE:30% ASPECT:SE.

The following were developed by Fred Allen, University of Tennessee, Plant Science & Landscape Systems, 252 Ellington Hall, Knoxville, Tennessee 37901-1071, United States; Vincent R. Pantalone, University of Tennessee, Dept. of Plant and Soil Science, Knoxville, Tennessee 37901-1071, United States; D. Landau-Ellis, University of Tennessee, Dept. of Plant and Soil Sciences, P.O. Box 1071, Knoxville, Tennessee 37901-1071, United States. Received 11/06/2003.

**PI 634193. *Glycine max* (L.) Merr.**

Cultivar. Pureline. "5002T". CV-466; PVP 200400178. Pedigree - Holladay x Manokin. In the USDA Uniform tests, 4-yr average (1999-2002), produced 3119 kg/ha seed yield, with 204 g/kg seed oil, 410 g/kg seed protein, and 0.14 g/seed. Maturity was 1.2 d later than Manokin. Flowers white, tawny pubescence, tan podwall and a determinate growth habit. Seeds yellow with imperfect black hila. Resistant to sudden death syndrome (*Fusarium solani*) and stem canker (*Diaporthe phaseolorum* var. *caulivora*). Susceptible to soybean mosaic virus, susceptible to southern root-knot nematode (*Meloidogyne incognita*), susceptible to peanut root-knot nematode (*Meloidogyne arenaria*), and susceptible to soybean cyst nematode (*Heterodera glycines* Ichinohe).

The following were developed by Robert J. Metzger, 2655 NW Highland Dr., #99, Corvallis, Oregon 97330, United States; Mathias F. Kolding, 1910 SW 44, Pendleton, Oregon 97801, United States. Received 11/24/2003.

**PI 634194. X *Triticosecale* sp.**

Cultivar. Pureline. "MAMMOTH"; KT90492p9031; NSGC 9356. Pedigree - M86-2570/4/Daws/Snoopy/3/B219/A876//LT944.79. Winter triticale. Excellent general disease resistance. Susceptible to *Fusarium* Head Blight and *Cephalosporium* Stripe.

**PI 634195. X *Triticosecale* sp.**

Cultivar. Pureline. "MAMMOTH II"; KT940874p9026; NSGC 9357. Pedigree - LT371.90//FW83097/FW706-63. Winter triticale. Excellent general disease resistance. Susceptible to *Fusarium* Head Blight and *Cephalosporium* Stripe.

The following were developed by Shahryar F. Kianian, North Dakota State University, Department of Plant Sciences, 470G Loftsgard Hall, Fargo, North Dakota 58105-5051, United States; William A. Berzonsky, North Dakota State University, 307G Loftsgard Hall, Plant Sciences Dept., Fargo, North Dakota 58105, United States; Gene Leach, North Dakota State University, Loftsgard Hall Rm 166, Fargo, North Dakota 58105-5051, United States; K.D. Hartel, North Dakota State University, Dept. of Plant Sciences, Fargo, North Dakota 58105, United States. Received 11/17/2003.

**PI 634196. X *Aegilotriticum* sp.**

Breeding. 01NDSWG-2. GP-767. Pedigree - LDN(Dic-3A)-32/TA 2452. Released 2002. To produce synthetic hexaploid wheat germplasm with resistance to *Fusarium* head blight (FHB), hybrids were initiated between Langdon (Citr 13165) durum wheat (*T. turgidum* ssp. *durum*) with a *T. dicoccoides* 3A chromosome substitution and two different accessions of *T. tauschii* ssp. *squarrosa*. The *T. dicoccoides* 3A substitution is the source of the FHB

resistance. A chemical doubling of the chromosome number of the hybrids resulted in the production of synthetic hexaploid wheat germplasm lines with the genome constitution AABBDD. The mean FHB spike severity ratings during two greenhouse evaluations were 44 and 47% which are comparable to or significantly lower than the 56 and 99% ratings for LDN(3AA)-32, the FHB resistant source parent. A cold treatment was beneficial in breaking seed dormancy and promoting seed germination. Exhibited a spring growth habit and extensive tillering, and matured somewhat late, flowering 84 to 92 d from germination under greenhouse conditions compared.

**PI 634197. X Aegilotriticum sp.**

Breeding. 01NDSWG-5. GP-768. Pedigree - LDN(Dic-3A)-32/TA 2452. Released 2002. To produce synthetic hexaploid wheat germplasm with resistance to Fusarium head blight (FHB), hybrids were initiated between Langdon (CItr 13165) durum wheat (*T. turgidum* ssp. *durum*) with a *T. dicoccoides* 3A chromosome substitution and two different accessions of *T. tauschii* ssp. *squarrosa*. The *T. dicoccoides* 3A substitution is the source of the FHB resistance. A chemical doubling of the chromosome number of the hybrids resulted in the production of synthetic hexaploid wheat germplasm lines with the genome constitution AABBDD. The mean FHB spike severity ratings during two greenhouse evaluations were 36 and 32% compared with ratings of 9% and 30% for Alsen (PI 615543), a FHB resistant hard red spring wheat cv., and ratings of 70% and 96% for McNeal (PI 574642), a susceptible hard red spring wheat cv. A cold treatment was beneficial in breaking seed dormancy and promoting seed germination. Exhibited a spring growth habit and extensive tillering, and matured.

**PI 634198. X Aegilotriticum sp.**

Breeding. 01NDSWG-4-1. GP-769. Pedigree - LDN(Dic-3A)-32/TA 2473. Released 2002. To produce synthetic hexaploid wheat germplasm with resistance to Fusarium head blight (FHB), hybrids were initiated between Langdon (CItr 13165) durum wheat (*T. turgidum* ssp. *durum*) with a *T. dicoccoides* 3A chromosome substitution and two different accessions of *T. tauschii* ssp. *squarrosa*. The *T. dicoccoides* 3A substitution is the source of FHB resistance. A chemical doubling of the chromosome number of the hybrids resulted in the production of synthetic hexaploid wheat germplasm lines with the genome constitution AABBDD. The mean FHB spike severity ratings during two greenhouse evaluations were 54 and 29% which are comparable to or significantly lower than the 56 and 99% ratings for LDN(3AA)-32, the FHB resistant source parent. A cold treatment was beneficial in breaking seed dormancy and promoting seed germination. Exhibited a spring growth habit and extensive tillering, and matured somewhat late, flowering 84 to 92 d from germination under greenhouse.

**PI 634199. X Aegilotriticum sp.**

Breeding. 01NDSWG-4-2. GP-770. Pedigree - LDN(Dic-3A)-32/TA 2473. Released 2002. To produce synthetic hexaploid wheat germplasm with resistance to Fusarium head blight (FHB), hybrids were initiated between Langdon (CItr 13165) durum wheat (*T. turgidum* ssp. *durum*) with a *T. dicoccoides* 3A chromosome substitution and two different accessions of *T. tauschii* ssp. *squarrosa*. The *T. dicoccoides* 3A substitution is the source of the FHB resistance. A chemical doubling of the chromosome number of the hybrids resulted in the production of synthetic hexaploid wheat germplasm lines with the genome constitution

AABBDD. The mean FHB spike severity ratings during two greenhouse evaluations were 53 and 33% which are comparable to or significantly lower than the 56 and 99% ratings for LDN(3AA)-32, the FHB resistant source parent. A cold treatment was beneficial in breaking seed dormancy and promoting seed germination. Exhibited a spring growth habit and extensive tillering, and matured somewhat late, flowering 84 to 92 d from.

The following were collected by Werner Leutert, PO Pemberton, 2 Jarrah Road, South Perth, Western Australia, Australia. Donated by Shawn A. Mehlenbacher, Oregon State University, Department of Horticulture, Corvallis, Oregon 97331, United States. Received 12/04/1998.

**PI 634200. *Corylus chinensis* Franch.**

Cultivated. *C. colurna* var. *chinensis*; CCOR 698. Collected in China. Pedigree - selection of *colurna* from China.

The following were donated by Shawn A. Mehlenbacher, Oregon State University, Department of Horticulture, Corvallis, Oregon 97331, United States. Received 03/30/2001.

**PI 634201. *Corylus* sp.**

Cultivar. 440.007; CCOR 736.

The following were donated by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Nana Mirotadze, Institute of Horticulture, Viticulture and Wine-Making, 6 Gelovani Street, Tbilisi, Georgia. Received 03/08/2002.

**PI 634202. *Corylus avellana* L.**

Cultivar. "Ganja"; CCOR 771. Pedigree - selection from Georgia.

The following were donated by Shawn A. Mehlenbacher, Oregon State University, Department of Horticulture, Corvallis, Oregon 97331, United States. Received 04/04/2002.

**PI 634203. *Corylus avellana* L.**

Cultivar. OSU 681.078; CCOR 780. Pedigree - Collected in the Russian Federation near Moscow.

The following were developed by A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States; S.H. Samudio, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 11/21/2003.

**PI 634204. *Lolium perenne* L.**

Cultivar. "A.S.A.P.". CV-237. Pedigree - Developed from the maternal progenies of 17 clones. High-endophyte, maternal germplasm sources contributing include: 16.7% Advent, 16.7% APM, 16.7% Yorktown III, 8.3% PI 231590, 8.3% 90-0112 (Simplot breeding population), 8.3% Prizm, 8.3% NK PR9201 (Simplot breeding population), 8.3% SR4000, 4.2% Palmer II, and 4.2% from Brightstar. Additional pollen sources in the breeder block

included advanced progeny from PI 231590, Advent, APM, and Morning Star. Methods used include selection, paired crosses. The variety Goalkeeper appears most similar in seed fields. Can be differentiated by the heavier weight seed of Goalkeeper. In Post Falls, ID, heading date averages June 3 to 5, plant height to inflorescence tip averages 60.4 to 62.6 cm, and flag leaf width at 1 cm from the collar averages 4.08 to 4.34 mm. In turf trials, genetic color is medium-dark, improved over earlier releases such as Advent or APM. Good turf quality performance with improvements over Advent, APM, Manhattan II, and Imagine. Plant density medium-high, medium-fine leaf texture, and moderate resistance to pink snow mold (*Microdochium nivale*), gray leaf spot (*Pyricularia grisea*), and large brown patch (*Rhizoctonia solani*) diseases. Developed for year-round turf use on lawns, golf course fairways, industrial sites, and parks in areas where perennial ryegrass is adapted for turf. Acceptable performance in company trials in ID, MD, OH, and CA. Has shown good turf quality in winter overseeding trials with.

**PI 634205. *Lolium perenne* L.**

Cultivar. "ADMIRE". CV-234. Pedigree - Developed from the maternal progenies of 22 clones. Major maternal germplasm from high endophyte sources are: 15% Accent, 12.5% Prelude II, 11.25% APM, 10% Palmer II, 6.25% Advent, 6.25% Omega II, and 5% or less: Brightstar, Saturn, Yorktown III, Birdie II, Manhattan II, Pennant, Gettysburg, SR 4000, 88-0071 (golf course selection), 90-0175 (Simplot breeding line), Calypso, Dimension, and 246. Methods used in the development include selection, paired crosses, polycrosses, and reselection. At Post Falls, ID, has an average heading date of June 1 to 9, with initial anthesis followed ~7 1/2 to 9 days later. Plant height to inflorescence tip averaged from 55.4 to 63.6 cm. Panicle length from tip of panicle to panicle node averaged from 14.7 to 16.9 cm. Culm length averaged from 50.9 to 54.5 cm. In production, appears most similar to Accent, however initial anthesis is later than Accent. Also a more diminutive plant than Accent, with a shorter plant height, panicle length, culm length and seed length. In the 1994 National Turfgrass Evaluation Program's perennial ryegrass test, demonstrated good establishment, spring and winter density, spring greenup, and spring, summer, and fall living ground cover. In these trials, displayed moderate to good resistance to pink snow mold (*Microdochium nivale*), red thread (*Laetisaria fuciformis*), large brown patch (*Rhizoctonia solani*), and melting out (*Drechslera* spp.). Maintained favorable living ground cover after traffic.

The following were developed by Larry Darrah, USDA-ARS, University of Missouri, Curtis Hall, Rm. 110, Columbia, Missouri 65211, United States; A.Q. Antonio, USDA-ARS, University of Missouri, Dept. of Entomology, Columbia, Missouri 65211, United States; Bruce E. Hibbard, USDA, ARS, University of Missouri, 205 Curtis Hall, Columbia, Missouri 65211-7020, United States; David Willmot, USDA, ARS, University of Missouri, 301 Curtis Hall, Columbia, Missouri 65211, United States; B.D. Barry, USDA-ARS, University of Missouri, Plant Genetics Research Unit and Dept. of Agronomy, Columbia, Missouri 65211, United States. Donated by David Willmot, USDA, ARS, University of Missouri, 301 Curtis Hall, Columbia, Missouri 65211, United States. Received 11/24/2003.

**PI 634206. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Mo48. GP-377. Pedigree - S6 selection from NC33/B52

under half-sib recurrent selection for resistance to European corn borer (*Ostrinia nubilalis*) second-generation damage (ECB2). NC33 (PI 608538, Cokes Prolific) is susceptible to ECB2 while B52 (PI 550454) is highly resistant. Dark green, medium-wide leaf blades angled open at about 60 degrees. Cob white, anthers yellow, trace color on the glumes and no glume bar. Has 19 to 21 tassel branches with a 23 cm spike. Has few tillers and floral synchrony is good. In 1999, at least as resistant to European Corn Borer as the resistant checks in replicated trials in MO, NE, IA, and MS. In 2002, tested for reaction to ECB2 damage in three replication in 10 tests in MO, MS, NE, IA, IL, OH, and DE for a total of 11 ECB1 locations evaluated and 10 for ECB2. Mo48, Mo49, B73, Mo17, Mo47 (resistant check) and DE811 (resistant check) had 13.1, 10.9, 35.4, 28.2, 11.2, and 22.6 cm of stalk tunneling, respectively. This line responded better for yield on Mo17 tester (two yrs. and five MO trials-18 replications total) and its hybrids are more resistant to ECB2 damage than B73/Mo17 (5.7 cm and 4.1 cm vs. 8.4 cm, respectively).

**PI 634207. *Zea mays* L. subsp. *mays***

Breeding. Inbred. Mo49. GP-378. Pedigree - S6 selection similarly derived as Mo48, but from a synthetic of Mo ECB selection 1 through Mo ECB selection 6 crossed in all combinations to three exotic Cargill populations: Cargill 4 (adapted Caribbean material), Mexico 2, and Mexico 3. Six cycles of S1 recurrent selection for ECB2 resistance were followed with a cross to MpSWCB#4 (resistant to the southwestern corn borer, *Diatraea grandiosella*) and four more cycles vs. ECB2. Medium green leaves possibly with a lesion mimic syndrome. Leaves medium in width and angled upright at about 30 degrees. Cob white, anthers purple, glumes striped and there is a glume bar. Has 5 to 11 tassel branches with a 30.5 cm spike. Sometimes produces a few tillers and silking is slightly delayed. In 1999, at least as resistant to European Corn Borer as the resistant checks in replicated trials in MO, NE, IA, and MS. In 2003, tested for reaction to ECB2 damage in three replication in 10 tests in MO, MS, NE, IA, IL, OH, and DE for a total of 11 ECB1 locations evaluated and 10 for ECB2. Mo48, Mo49, B73, Mo17, Mo47 (resistant check) and DE811 (resistant check) had 13.1, 10.9, 35.4, 28.2, 11.2, and 22.6 cm of stalk tunneling, respectively. Responded better for yield on a Mo17 tester (two yrs. and five Missouri trials-18 replications total) and its hybrids are more resistant to ECB2 damage than B73/Mo17 (5.7 cm and 4.1 cm vs. 8.4 cm, respectively).

The following were developed by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Kevin E. McPhee, Washington State University, Crop & Soil Science Department, Johnson 305, Pullman, Washington 99164-6420, United States. Received 02/26/2003.

**PI 634208. *Lens culinaris* Medik. subsp. *culinaris***

Cultivar. "Merrit"; W6 24283. CV-18. Pedigree - Originated as an F5 selection from the cross Brewer\*2/LC760336/Palouse, made in 1990. Brewer was developed and released in 1984 as a large-seeded, slightly mottled, yellow-cotyledon,, high- yielding cv. Palouse has larger seeds when compared to Brewer and has an absence of seed coat mottling. LC7660336 is a selection from a bulk population from the cross (XH79006) of two selections (GH107 and GH101) made by V.E. Wilson; however the pedigrees of the two selections are unknown. The cross that led to this selection was advanced by the bulk method to the F5 and single plant selections

made from the same bulk population. Seeds large and slightly mottled and is expected to replace Brewer as one of the predominant cvs. in the U.S. Pacific Northwest.

**PI 634209. *Lens culinaris* Medik. subsp. *culinaris***

Cultivar. "Pennell"; LC460197; W6 24284. CV-19. Pedigree - Originated as an F6 selection from the cross of LC660194/Brewer, made in 1990. LC6600194 is a selection from PI 299321 made in 1986 for large seed size and upright plant habit. Brewer (PI 508090) was developed and released in 1984 as a large-seeded, yellow cotyledon, high-yielding cv. The cross was advanced to the F6 by the bulk method and single plant selections were made in 1993 and grown in plant progeny rows in 1994. The F6 progeny row that led to the development of this line was selected in 1994. Preliminary screening tests were conducted in 1995 and this line was entered in advanced yield trials and evaluated at 15 site-years from 1997-2000. Yields were comparable to Brewer when averaged over sites; however, averaged 9.1% higher yields when compared to Mason (PI 619099), the comparable cv. for seed size.

The following were developed by Lee Panella, USDA, ARS, Sugarbeet Research Unit, Natl. Ctr. for Genetic Resources Pres., Fort Collins, Colorado 80521-4500, United States. Received 12/02/2003.

**PI 634210. *Beta vulgaris* L.**

Breeding. FC301; 2003A034; 01-123. GP-247. Pedigree - C890aa x (FC607 & FC604) bulked with C859aa x same two pollen donors. O-type germplasm segregating for hypocotyl color (94% red) and monogerm (90%). Two crosses made. C890aa x two pollen donors-FC607 & FC604 (approx. 50 F1 plants) bulked with the cross C859aa x the same 2 pollen donors (approx. 50 F1 plants). F1 seed combined for bulk increase of F2 after germination testing to make parental contribution equal from both female parents. 90 F2 mother roots harvested and selfed. 75 selfed families produced and selected for resistance to cercospora leaf spot (Fort Collins, CO), and Beet curly top virus (Kimberly, ID). Best performing families in both nurseries increased and seed sent to Salinas, where sel. made for rhizomania resist., resist. to Erwinia root rot, powdery mildew, agronomic performance, and % sucrose. Sel. roots inter-pollinated, and monogerm and multigerm seed separated forming two pop. 99-1,2,3, M and 99-1,2,3, m. Seed from monogerm populations either sent to Oregon for steckling prod. or planted in the Salinas rhizomania nursery.

The following were developed by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States; Paul R. White, Iowa State University, Dept. of Agronomy, Ames, Iowa 50011, United States; Kendall R. Lamkey, USDA, ARS, Iowa State University, 1555 Agronomy, Ames, Iowa 50011, United States. Donated by Arnel R. Hallauer, Iowa State University, Department of Agronomy, 1401 Agronomy Hall, Ames, Iowa 50011-1010, United States. Received 11/14/2003.

**PI 634211. *Zea mays* L. subsp. *mays***

Breeding. Inbred. B117; 2002:92. PL-316. Pedigree - (B97 x B99)-024-1-1-2-1-1. Vigorous inbred line developed from an F2 population. Flowers 86 days after planting and crosses with B117 as one parent would be included in the AES700-800 Maturity Group. Crosses that

included B117 as one parent have exhibited consistently good performance in trials conducted in 2000, 2001, and 2002. Excellent grain quality with flinty type kernels with a small dent cap. Ears have 12 kernel rows and small tapering ears with pink cobs. Above average tolerance to 1st and 2nd generation European corn borers (*Ostrinia nubilalis*) and gray leaf spot (*Cercospora zeae*). Included in the non-BSSS heterotic group.

**PI 634212. *Zea mays* L. subsp. *mays***

Breeding. Inbred. B118; 2002:94. PL-317. Pedigree - (B97 x B99)-024-1-1-2-1-2-1. Vigorous inbred line developed from an F2 population. Flowers 81 days after planting, which is similar to B73. Small flinty kernels on ears with 12 kernel rows that have pink cobs. Close relative of B117 and has exhibited consistently good yield performance in evaluation trials conducted in 2000, 2001, and 2002. Shows good plant health to most diseases and insects. Included in the non-BSSS heterotic group.

**PI 634213. *Zea mays* L. subsp. *mays***

Breeding. Inbred. B119; 2002:58. PL-318. Pedigree - BS13(S)C7-0008-1-1-1-1-1-1. Dark green phenotype exhibiting consistently good yield performance from evaluation trials conducted in Iowa and the north Central Region. Crosses with B119 are included in AES700-800 Maturity Group. Flowers 81 days after planting, which is similar to B73. Ears large with 16 kernel rows of large kernels that are soft dent type. Ears are tapering. Tends to be prolific but one large ear is more common. Good plant health and stay green. Included in the BSSS heterotic group.

**PI 634214. *Zea mays* L. subsp. *mays***

Breeding. Inbred. B120; 2002:167. PL-319. Pedigree - BSCB(R)C12-6826-1-1-1-1-1-1-1. Flowers 78 days after planting, which is 3 to 5 days earlier than B73. Exhibits good yield performance in trials that included the AES700-800 Maturity Group. Ears short with 14 to 16 kernel rows of flinty kernels with very limited indentation. Excellent seed set and good quality grain on ears with pink cobs. Good early season plant health, but 2nd generation European corn borers cause loss of plant tops in late fall. Included in the non-BSSS heterotic group.

**PI 634215. *Zea mays* L. subsp. *mays***

Breeding. Inbred. B121; 2002:56. PL-320. Pedigree - BS13(S)C6-7884-1-1-1-1-1-1-1. Exhibits consistently good yield performance in trials conducted in Iowa and North Central Region in 2000, 2001, and 2002. Included in AES700-800 Maturity Group. Flowers 76 days after planting with dark green phenotype, which is about 5 days earlier than B73. Ear size good with soft starchy kernels. Susceptibility to 2nd generation European corn borer (*Ostrinia nubilalis*) occurs in most years. Included in the BSSS heterotic group and combines well with lines from non-BSSS heterotic group.

The following were developed by Robert T. Lewellen, USDA, ARS, Crop Improvement and Protection Research, 1639 E. Alisal St., Salinas, California 93905, United States. Received 12/03/2003.

**PI 634216. *Beta vulgaris* L.**

Breeding. C81-22; R381-22; R181,22; R81-22. Pedigree - Increase of one Full-sib family. Full-sib was derived from breeding line R881. R881 is

an improved population with rhizomania resistance backcrossed into C31/6 type germplasm. Self-sterile, multigerm line with resistance to rhizomania, virus yellows (Beet yellows virus, Beet western yellows virus, and Beet chlorosis virus). Moderately resistant to powdery mildew (*Erysiphe polygoni*) and *Erwinia* soft rot (*E. carotovora betavascularum*). Moderately susceptible to Beet curly top virus. High nonbolting tendency. Produces hybrids with high sugar content and yield.

**PI 634217. *Beta vulgaris* L.**

Breeding. C842; 3842. GP-248. Pedigree - Genetic-male-sterile, random mated, self-fertile, monogerm population composed of a wide germplasm base including inbreds C562, C546, C718, C762-17, C796-43, C864-14 and C867-1. Improved monogerm population that segregates for genetic ms (A:aa), O-type, and hypocotyl color (10% rr). Resistant to rhizomania (Rz1). Moderately resistant to Beet curly top virus and bolting. Partially compared of previously released parent lines C562, C546, C718, and C762-17 that have high curly top resistance.

**PI 634218. *Beta vulgaris* L.**

Breeding. C842CMS; 3842CMS; 3842HO. GP-249. Pedigree - Near cytoplasmic-male-sterile (CMS) equivalent of C842. The traits will be very similar to C842 but will have CMS.

The following were developed by International Rice Research Institute, P.O. Box 3127, Makati Central Post Office, Makati City, Luzon 1271, Philippines. Received 05/14/1996.

**PI 634219. *Oryza sativa* L.**

Cultivar. Pureline. IR59624-34-2-2; 18159; Q 36262. . Pedigree - IR45912-9-1-2-2/IR41996-50-2-1-3. Source 950750. Site UB2-UB3-3. Season DS. Nursery IRBPHN.

The following were donated by International Rice Research Institute, P.O. Box 3127, Makati Central Post Office, Makati City, Luzon 1271, Philippines. Received 05/14/1996.

**PI 634220. *Oryza sativa* L.**

Cultivar. Pureline. "NJ70507"; 17578; Q 36269. . Developed in China. Pedigree - Yanxian 156/IR4595-4-1-1-5. Source 913249. Site UY4. Season WS. Nursery IRSBN.

**PI 634221. *Oryza sativa* L.**

Cultivar. Pureline. RP2199-16-2-2-1; 17003; Q 36274. . Developed in India. Pedigree - Phalguna/TKM6. Source 910014. Site UY-UPPER. Season DS. Nursery IRSBN.

**PI 634222. *Oryza sativa* L.**

Cultivar. Pureline. S972B-22-1-3-1-1; 17658; Q 36276. . Developed in Indonesia. Pedigree - OBS677/IR14632-165. Source 912466. Site UU. Season DS. Nursery Remnant.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State

University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 07/28/1996.

**PI 634223. *Dactylis glomerata* L.**

Wild. B96-159; W6 19347. Collected 07/1996 in Bulgaria. Latitude 41 deg. 56' 51'' N. Longitude 24 deg. 51' 16'' E. Elevation 426 m. Steep slope, very vegetated riparian system. Much Vicia. west.

**PI 634224. *Dactylis glomerata* L.**

Wild. B96-131; W6 19325. Collected 07/1996 in Bulgaria. Latitude 41 deg. 59' 1'' N. Longitude 24 deg. 52' 3'' E. Elevation 410 m. Near castle, Asenova Krepost. Much Malva, shrubs, and thistle.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 634225. *Festuca valesiaca* Schleich. ex Gaudin**

Wild. UKR-99-120; W6 21781. . Collected 07/31/1999 in Krym, Ukraine. Latitude 44 deg. 30' 41'' N. Longitude 33 deg. 50' 48'' E. Elevation 420 m. In lake valley near Peredove. South slope, grazed, rocky. Heavily grazed, hard to fine.

The following were collected by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/02/1993.

**PI 634226. *Phleum phleoides* (L.) H. Karst.**

Wild. X93217; W6 13122. Collected 08/21/1993 in Xinjiang, China. Latitude 43 deg. 41' N. Longitude 89 deg. 18' E. Elevation 1870 m. Loam soil, middle pasture, 44km south of Jimsar, east sloping steep hillside pasture near Chuan Zi Jie Village, Xinjiang. Diversity immense.

The following were donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 11/17/1993.

**PI 634227. *Elytrigia intermedia* (Host) Nevski**

Uncertain. D-3647; MA-7-36--45; W6 13872. Collected in China. Source of *Elytrigia intermedia* addition lines in wheat.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin

B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 634228. *Elymus sibiricus* L.**

Wild. DJ-3874; MB-91-1-10 1991; W6 14371. Collected 08/11/1989 in Russian Federation. Elevation 1250 m. Growing among granite boulders and talus. Near 660 km marker on highway M-52 at top of Cheketeman Pass, Gorno Altay A.O. Spikes purple. Prevalent.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Abdelmajid Mezni, Tunisia. Received 08/19/1994.

**PI 634229. *Festuca arundinacea* Schreb.**

Wild. T085.CPG94; 136324; W6 16059. Collected 06/27/1994 in Tunisia. Latitude 36 deg. 33' 31'' N. Longitude 8 deg. 46' 18'' E. Elevation 150 m. Near Boua Regia, 10 k northeast of Jendouba on C59 road. Grazed. Slope 0-5%, aspect S. Area open. Soil cracking clay, vertisols. Some salinity. Moist, alluvial fan, swale area with dense stand of *Juncus* sp. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat. Population abundance frequent, distribution patchy. Growth habit erect.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 05/1995.

**PI 634230. *Elymus sibiricus* L.**

Wild. E94037; W6 18005. Collected 09/1994 in Mongolia. Latitude 47 deg. 23' 26'' N. Longitude 110 deg. 7' 42'' E. Elevation 1463 m. Approximately 100 km west of Onderhan City, Hentii Aimag. Toe-slope and lower to middle slope of significant range of hills along Herlen River. Mountain-grass steppe.

**PI 634231. *Elymus sibiricus* L.**

Wild. E94219; W6 18134. Collected 09/1994 in Mongolia. Latitude 47 deg. 34' 31'' N. Longitude 112 deg. 20' 46'' E. Elevation 747 m. Gumensat Sum along Herlen River, eastern Mongolia. Grass steppe (disturbed). Soils typical of grass steppe but reflect impact of human activities associated with sum center.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 07/28/1996.

**PI 634232. *Festuca arundinacea* Schreb.**

Wild. B96-229; W6 19401. Collected 07/1996 in Bulgaria. Latitude 41 deg. 34' 10'' N. Longitude 24 deg. 51' 48'' E. Elevation 714 m. 15km southeast of Smolyan, along Cherna River. Near village of Ravnishte. south.

The following were collected by T.A. Campbell, USDA-ARS, Germplasm Quality and Enhancement Lab, Building 001, Room 339, Beltsville, Maryland 20705, United States; John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Larry K. Holzworth, USDA-NRCS State Office, Federal Bldg., Room 443, 10 E. Babcock, Bozeman, Montana 59715-4704, United States. Received 12/1997.

**PI 634233. *Elymus abolinii* (Drobow) Tzvelev**

Wild. X97-082; W6 20253. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 1' 42" N. Longitude 81 deg. 18' 23" E. Elevation 1880 m. 30 km east of Zhaosu County. Ungrazed hillside, silt loam about 30 inches deep underlain with clay. Slope is 40% with north aspect.

The following were collected by Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

**PI 634234. *Festuca arundinacea* Schreb.**

Uncertain. C137; W6 20360. Collected 08/1997 in California, United States. Elevation 0 m. 1/2 mile east of Ferndale. Grazed, sand/loam, 0-5% slope, open. Diverse mix of species present.

**PI 634235. *Festuca arundinacea* Schreb.**

Uncertain. C148; W6 20366. Collected 08/1997 in California, United States. Elevation 0 m. On north edge of town of Orick in Humboldt County on right just before bridge over Redwood River. Beef pasture, stream terrace, grazed, sand/loam, 0-5% slope, open, moist.

**PI 634236. *Festuca arundinacea* Schreb.**

Uncertain. OR4; W6 20376. Collected 08/1997 in Oregon, United States. Latitude 42 deg. 16' 2" N. Longitude 124 deg. 23' 56" W. Elevation 20 m. Town of Pistol River in southwest Oregon. 200 m inland from Highway 101. Grazed, loam, 0-5% slope, open, moist, stream terrace. Rough beef pasture on low terrace.

**PI 634237. *Festuca arundinacea* Schreb.**

Uncertain. OR14; W6 20381. Collected 08/1997 in Oregon, United States. Elevation 0 m. 1/2 mile south of Hauser just inland of Highway 101. Lagoon behind coastal dunes. Sand, 0-5% slope, 1/4 shade, seasonally inundated. Natural wetland bisected by highway.

**PI 634238. *Festuca arundinacea* Schreb.**

Uncertain. C93; W6 20442. Collected 08/1997 in California, United States. Elevation 0 m. 10 miles west of Petaluma and 1 mile before turnoff to Valley Farm Road. Rough grazed pasture, loam, 0-5% slope, open.

The following were collected by Charles West, University of Arkansas, Altheimer Laboratory-Agronomy, 276 Altheimer Drive, Fayetteville, Arkansas 72703, United States; David A. Slepser, University of Missouri, Department of

Agronomy, 271-F Life Sciences Center, Columbia, Missouri 65211, United States ; Jose Alberto Oliveira, Centro de Investigaciones Agrarias de Mabegondo, Apdo 10, La Coruqa, Spain. Received 12/1997.

**PI 634239. *Festuca arundinacea* Schreb.**

Wild. 93069; W6 20554. Collected 07/1993 in Spain. Latitude 41 deg. 50' N. Longitude 2 deg. 58' E. Elevation 50 m. Bel-lloc, 4 km NW of Sant Feliu de Guixols in the province of Gerona.

The following were collected by Charles West, University of Arkansas, Altheimer Laboratory-Agronomy, 276 Altheimer Drive, Fayetteville, Arkansas 72703, United States. Received 12/1997.

**PI 634240. *Festuca arundinacea* Schreb.**

Wild. 93076; W6 20572. Collected 07/1993 in France. Latitude 42 deg. 42' N. Longitude 2 deg. 41' E. Elevation 100 m. E bank of Le Tet rier at Mollas on N11 in the province of Roussillon.

The following were donated by Khorshid Razmjoo, Taisei Biotechnology Research, 3-6 Akanehama, Narashino-shi, Chiba, Chiba 275, Japan. Received 08/28/1997.

**PI 634241. *Festuca arundinacea* Schreb.**

Cultivated. TF6; W6 22044. Selected for salt tolerance. Salt tolerance method used: Potted plants in greenhouse were watered from 10% sea water and 90% tap water and increased up to 100% sea water. Planted in field for two years and 4-8 clones were selected for disease resistance, color, leaf size and density under Japanese conditions.

The following were collected by Nikolai I. Dzyubenko, N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Blair Waldron, USDA, ARS, Utah State University, Forage and Range Research Laboratory, Logan, Utah 84322-6300, United States; R. Deane Harrison, USDA, ARS, Utah State University, Forage and Range Research Lab., Logan, Utah 84322-6300, United States; Auskhan Khusainov, Aral Sea Experiment Station for Plant Genetic Resources, 27 Biyeckenov Street, Chelkar Town, Kazakhstan. Received 04/04/2000.

**PI 634242. *Agropyron fragile* (Roth) P. Candargy**

Wild. Pkg# 2; PARL 2; W6 22353. Collected 10/1999 in Kazakhstan. Latitude 47 deg. 3' N. Longitude 59 deg. 45' E. Elevation 302 m. Soil: sandy loam, silty clay loam. Ppt = 150 mm.

**PI 634243. *Agropyron fragile* (Roth) P. Candargy**

Wild. Pkg# 30; PARL 29; W6 22380. Collected 10/1999 in Kazakhstan. Latitude 48 deg. 5' N. Longitude 59 deg. 48' E. Elevation 213 m. Soil: slit loam. Ppt = 200 mm.

**PI 634244. *Agropyron fragile* (Roth) P. Candargy**

Wild. Pkg# 57; PARL 55; W6 22406. Collected 10/1999 in Kazakhstan. Latitude 49 deg. 31' N. Longitude 61 deg. 23' E. Elevation 274 m. Soil: sandy loam. Ppt = 250 mm.

The following were developed by P. Pommers. Donated by P. Berzins, Latvian State Res. Inst. of Agriculture, Skriversi - 1, Aizkraukle Dist., Latvia. Received 04/08/1993.

**PI 634245. *Festuca pratensis*** Huds.

Cultivar. "PRIEKULU 519"; W6 11519. Growth data in Latvia, heads 45 days, blooms 62 days, matures 78 days, seed yield 6-9 t/ha, dry matter 9 t/ha and good winter hardiness.

The following were collected by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/02/1993.

**PI 634246. *Elytrigia repens*** (L.) Desv. ex Nevski

Wild. X93101; W6 13017. Collected 08/11/1993 in Xinjiang, China. Latitude 44 deg. 10' N. Longitude 84 deg. 34' E. Elevation 1500 m. Natural pasture just before Chanjing Farm, Xinjiang.

The following were donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 11/17/1993.

**PI 634247. *Elytrigia repens*** (L.) Desv. ex Nevski

Wild. D-4229; MB-10-40-49; W6 13926. Collected 09/12/1989 in Russian Federation. Railway Station in Komsomolsk, Khabarovsk Kray, Soviet Far East.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 11/30/1993.

**PI 634248. *Pseudoroegneria geniculata*** (Trin.) A. Love

Wild. DJ-3883; MB-86-71-80; W6 14053. Collected 08/12/1989 in Russian Federation. Elevation 1000 m. Dry rocky slope, mountainside opposite the Cheketeman camp (located on the Ilgumen stream at south side of Cheketeman Pass near the 666km marker on Hwy M-52, Gorno Altay A.O.). Growing in thorny shrubs. Bronze-colored spikes.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 634249. *Elymus glaucus*** Buckley

Wild. D-3325; MB-59-41-50 1992; W6 14236. Collected 07/19/1983 in California, United States. Humbolt Redwood State Park between Bull Creek

and Honeydew, Humbolt County, California.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 03/06/1997.

**PI 634250. *Elytrigia repens* (L.) Desv. ex Nevski**

Wild. 96S-85; W6 19612. Collected 09/1996 in Mongolia. Latitude 46 deg. 6' 44'' N. Longitude 91 deg. 33' 16'' E. Elevation 1213 m. Khovd Aimag, Bulgan Sum, an experimental area about 1 km from the sum center. 0% slope. Outwash plain in desert steppe that has been fenced for 30 years as an experimental crop area. Flood irrigation is used. Soils are coarse, recent river alluvium with coarse sandy brown soils. DOMINANT VEG: Experimental area currently being harvested for hay. Associated species other than species collected were crab apple and sea buckthorn.

The following were collected by Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzhert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

**PI 634251. *Lolium multiflorum* Lam.**

Uncertain. C24; W6 20323. Collected 07/1997 in California, United States. Monterey. Outside 550 Aguajito road = Cypress Stables. Roadside. Loam. Slope 0-5%. Open. Seasonally dry.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 634252. *Elytrigia repens* (L.) Desv. ex Nevski**

Wild. UKR-99-105; W6 21770. . Collected 07/30/1999 in Krym, Ukraine. Latitude 44 deg. 36' 34'' N. Longitude 33 deg. 29' 34'' E. Elevation 20 m. Near Black Sea, Greek and Roman ruin a Sevastrol. Flat.

The following were collected by Peter Cunningham, Dept. of Agriculture & Rural Affairs, Pastoral Research Institute, P.O. Box 180, Hamilton, Victoria 3300, Australia; Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Claudio Porqueddu, Sassari, Sardinia, Italy. Received 08/19/1994.

**PI 634253. *Dactylis glomerata* L.**

Wild. S006.CPG94; W6 16111. Collected 07/04/1994 in Sardinia, Italy. Latitude 40 deg. 44' 9'' N. Longitude 8 deg. 41' 9'' E. Elevation 540 m.

Near Nulvi, 15.1 k east to Nulvi from Osilo on road SS127, 4 k east of Osilo. Grazed. Slope 11-40%, aspect W. 1/4 shade. Soil clay. Seasonally dry, upper slope. Vegetation closed, seasonal tall grass. Surrounding veg. dryland wheat/forage. Dominant tree *Olea* sp. Dom. shrub *Cistus* sp. Dom. herb/grass annual grasses. Population abundance frequent, distribution patchy. Growth habit erect.

**PI 634254. *Dactylis glomerata* L.**

Wild. S009.CPG94; W6 16114. Collected 07/04/1994 in Sardinia, Italy. Latitude 40 deg. 44' N. Longitude 8 deg. 44' 52'' E. Elevation 520 m. Near Nulvi, 6 k east to Nulvi road SS127, Osilo-Nulvi. Past grazed, now roadway. Slope 11-40%, aspect W. Area open. Soil loam, pH 8.5. Rainfall 750 mm. Seasonally dry, mid slope. Vegetation closed, seasonal tall grass. Surrounding veg. dryland grain/forage. Population abundance frequent, distribution patchy. Growth habit erect.

The following were collected by Walter Graves, University of California Cooperative Ext. Service (retired), 7665 Volclay Drive, San Diego, California 92119-1219, United States; Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Melvin Rumbaugh, R.R. 3, Box 125, Humboldt, Nebraska 68376, United States; Nicolay Portinier, Kamorov Institute of Botany, St. Petersburg, Leningrad, Russian Federation; Jay Hart, 20 Bush Lane, Ithaca, New York 14850, United States; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

**PI 634255. *Dactylis glomerata* L.**

Wild. 0050; VIR 169B; US 50; W6 17837. Collected 08/30/1995 in Russian Federation. Latitude 43 deg. 56' 52'' N. Longitude 40 deg. 12' 31'' E. Elevation 1900 m. 11 km. southeast of Goozeripl', in the vicinity of town of Maykop. Previously logged/cleared, now grazed. Slope 0-5%, aspect S. 1/4 shade. Soil loam with gravel, derived from schists/rocks, pH 5.7. Moist to seasonally dry, upper slope. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Betula* sp., *Abies* sp., *Acer* sp., *Fagus* sp. Dominant shrub species *Laurocerasus* sp., *Rhododendron* sp. Dominant herb/grass species grass dominant, *Calamagrostis* sp., *Agrostis* sp. Population distribution patchy, abundance occasional. Growth habit erect. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

**PI 634256. *Dactylis glomerata* L.**

Wild. 0069; VIR 226; US 69; W6 17842. Collected 09/04/1995 in Russian Federation. Latitude 44 deg. 28' 49'' N. Longitude 40 deg. 48' 53'' E. Elevation 380 m. Province Maykop/Labinsk, 5 km. south of Vladimirskaia. Area grazed, cut hay. Slope 11-40%, aspect SW. Light open. Soil clay, pH 7.7. Moist, lower slope. Vegetation closed, seasonal tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Crataegus* sp., *Quercus* sp., Hornbeam-Oak. Dominant shrub species *Sambucus* sp., *Rosa* sp., *Prunus* sp. Dominant herb/grass species *Achellia* sp., *Daucus* c., *Medicago* f., *Bothriochloa* i., *Erytregia* sp. Population distribution patchy, abundance occasional. Growth habit erect. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr.

Stephanie L. Greene (sgreene@ars-grin.gov).

The following were collected by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Lufter Xhuveli, Agricultural University of Tirana, Dept. of Agronomy, Rr."Myslym Shyri", Tirana, Albania. Received 09/1996.

**PI 634257. *Dactylis glomerata* L.**

Wild. Al 027; W6 18619. Collected 08/25/1996 in Albania. Latitude 40 deg. 23' 56'' N. Longitude 19 deg. 28' 38'' E. Elevation 50 m. Jonufer, S of Vlore, off the Adriatic Bay of Vlore. West facing slope in terraced olive orchard. Height 30-50cm.

**PI 634258. *Dactylis glomerata* L.**

Wild. Al 046; W6 18625. Collected 08/26/1996 in Albania. Latitude 40 deg. 11' 54'' N. Longitude 20 deg. 10' 35'' E. Elevation 1290 m. Pastures of Cajup and surrounding hillside. Open area grazed by sheep and goats.

The following were collected by Jerrold I. Davis, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; K. Guney, Ankara University, Ankara, Ankara, Turkey; U. Bingol, Ankara University, Ankara, Ankara, Turkey; L. Kurt, Ankara University, Ankara, Ankara, Turkey. Received 02/10/1997.

**PI 634259. *Eremopoa altaica* subsp. *songorica* (Schrenk) Tzvelev**

Wild. 4082; W6 19191. Collected 07/14/1993 in Yozgat, Turkey. Latitude 39 deg. 31' N. Longitude 35 deg. 58' E. Elevation 1433 m. Ak Daglar, Buhuknalbant Dagi, about 23 km southeast of Akdagmadeni, Forest Service Station. Waste gravelly, ground around station, in shallow montane agricultural valley, surrounded by pine forest, with other annuals.

The following were collected by Robert J. Soreng, Cornell University, L. H. Bailey Hortorium, 462 Mann Library, Ithaca, New York 14853-4301, United States; K. Guney, Ankara University, Ankara, Ankara, Turkey. Received 02/10/1997.

**PI 634260. *Eremopoa altaica* subsp. *songorica* (Schrenk) Tzvelev**

Wild. 4214; W6 19235. Collected 08/01/1993 in Bayburt, Turkey. Latitude 40 deg. 25' N. Longitude 40 deg. 4' E. Elevation 1555 m. 24 km northwest of Bayburt on Highway E97/050 to Trabzon, just east of Aksar. Loamy sands of floodplain bench of small river under *Populus*, in enclosure of a small park. Among steppe covered hills south of the Pontic Mountains. Common.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range

Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 01/16/1992.

**PI 634261. *Elymus* sp.**

Wild. DJ-3919; W6 10348. Collected 08/12/1989 in Russian Federation. Elevation 1160 m. Between 659 and 658km markers. N side of Cheketeman Pass, Gorno Altay A.O., from the summit (660km marker on Highway M-52 at 1250m) to its base (656km marker and 1010m). Siberia. Spikes large, erect, intensely purple.

**PI 634262. *Elymus* sp.**

Wild. DJ-3934; W6 10349. Collected 08/13/1989 in Russian Federation. Elevation 950 m. From a conifer slope across the Ilgumen stream at N base of Cheketeman pass (Cheketeman camp), Gorno Altay A.O. Siberia. Green. Spikes short. Glumes large. Awnless.

**PI 634263. *Elymus* sp.**

Uncertain. DJ-4159; W6 10354. Collected 08/1984 in Russian Federation. Primorye Kray, RSFSR. Siberia. Agafonov collection. Spikes slender, single spikelets. Awned. Glumes large.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 634264. *Elytrigia caespitosa* (K. Koch) Nevski**

Wild. UKR-99-044; W6 21728. . Collected 07/28/1999 in Krym, Ukraine. Latitude 44 deg. 24' 15" N. Longitude 33 deg. 49' 30" E. Elevation 230 m. Near Black Sea and Sanatome along road A-294. South slope, rocky, dry. Abundant.

The following were donated by Welsh Plant Breeding Station, Genetic Resources Unit, Aberystwyth, Wales, United Kingdom. Received 09/03/1991.

**PI 634265. *Dactylis glomerata* subsp. *lusitanica* Stebbins & Zohary**

Wild. ABY-BC 5662.67; W6 9157. Collected in Spain. Latitude 43 deg. 10' N. Longitude 7 deg. 52' W. Elevation 457 m. Guitiriz.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 634266. *Elymus trachycaulus* (Link) Gould ex Shinnars**

Wild. D-2829; MB-54-1-10 1992; W6 14217. Collected in Unknown.

- PI 634267. *Elymus trachycaulus*** (Link) Gould ex Shinners  
Wild. D-3284; MB-76-61-65 1985; W6 14232. Collected 08/09/1983 in United States. 0.5 miles up Rist Canyon, 3 miles west of La Porte, Larimer County, Colorado.
- PI 634268. *Elymus trachycaulus*** (Link) Gould ex Shinners  
Wild. D-3287; MB-77-6-10 1985; W6 14234. Collected 08/10/1983 in United States. 14 mile Reservoir, north of Rock Springs, Sweetwater County, Wyoming.
- PI 634269. *Elymus strictus*** (Keng) A. Love  
Wild. D-3427; MB-55-1-10 1992; W6 14250. Collected in China. Ma-er-kang, Sichuan Province.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

- PI 634270. *Elymus dahuricus*** Turcz. ex Griseb.  
Wild. DJ-3792; MB-88-41-50 1991; W6 14349. Collected 08/05/1989 in Russian Federation. Field plots of O. and A. Agafonov in Central Siberian Botanical Garden, Academy Town, Novosibirsk, RSFSR. Leaves blue. Spikes dense, long curved awns.
- PI 634271. *Elymus dahuricus*** Turcz. ex Griseb.  
Wild. DJ-3855; MB-89-51-60 1991; W6 14365. Collected in Russian Federation. Elevation 350 m. Along Katun River near its confluence with the Sema River near Kamlak (Gorno Altay A.O.). Typical.
- PI 634272. *Elymus dahuricus*** Turcz. ex Griseb.  
Wild. DJ-3857; MB-89-41-50 1991; W6 14366. Collected 08/11/1989 in Russian Federation. Elevation 780 m. 546km marker on highway M-52 beyond Cherga toward Shebalino (Gorno Altay A.O.). Typical.
- PI 634273. *Elymus dahuricus*** Turcz. ex Griseb.  
Wild. DJ-3891; MB-88-51-60 1991; W6 14372. Collected 08/12/1989 in Russian Federation. Elevation 1030 m. Shaded moist slope on mountainside opposite the Cheketeman camp (located on the Ilgumen stream at south side of Cheketeman Pass near 666km marker on highway M-52, Gorno Altay A.O.). Spikes large, purplish.

The following were collected by Kay H. Asay, USDA, ARS, Forage & Range Research Unit, Utah State University, Logan, Utah 84322-6300, United States; Michael D. Casler, University of Wisconsin, Department of Agronomy, 1575 Linden Drive, Madison, Wisconsin 53706-1597, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/14/1993.

- PI 634274. *Psathyrostachys juncea*** (Fisch.) Nevski  
Wild. AJC-529; W6 14624. Collected 08/14/1988 in Russian Federation.

Experimental farm in Cherga,, Inst. of Cytology and Genetics of the Siberian Branch of Academy of Science at Novosibirskk.

- PI 634275. *Psathyrostachys juncea* (Fisch.) Nevski**  
Wild. AJC-535; W6 14625. Collected 08/16/1988 in Russian Federation.  
10km east of Yubagon Pass, Altai Region, Siberia.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 05/1995.

- PI 634276. *Elymus dahuricus* Turcz. ex Griseb.**  
Wild. E94047; W6 18010. Collected 09/1994 in Mongolia. Latitude 47 deg. 22' 7'' N. Longitude 110 deg. 20' 40'' E. Elevation 1256 m.  
Approximately 75 km west of Onderhan City, Hentii Aimag. Irrigated experimental farm growing vegetables. Germplasm collected from native species growing near cultivated areas. Steppe.

- PI 634277. *Elymus dahuricus* Turcz. ex Griseb.**  
Wild. E94221; W6 18136. Collected 09/1994 in Mongolia. Latitude 47 deg. 34' 31'' N. Longitude 112 deg. 20' 46'' E. Elevation 747 m. Gumensat Sum along Herlen River, eastern Mongolia. Grass steppe (disturbed). Soils typical of grass steppe but reflect impact of human activities associated with sum center.

The following were collected by Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand; Alan V. Stewart, Pyne Gould Guinness Ltd., P.O. Box 3100, 411 Blenheim Road, Christchurch, South Island 8015, New Zealand. Received 01/1998.

- PI 634278. *Lolium perenne* L.**  
Wild. OR116; W6 20453. Collected 08/1997 in Oregon, United States.  
Latitude 44 deg. 30' 37'' N. Longitude 124 deg. 1' 53'' W. Elevation 100 m. Town of Ona, Beaver Creek Road, 1 mile before turnoff towards Ona.  
Infertile hill sloping down to river terrace.  
Ridgetop+upperslope+stream terrace. Grazed. Loam, 6-40% slope, open, moist.

The following were donated by Robert Aline, RAGT, Centre de recherche, Le Bourg, Druelles, France. Received 11/19/1990.

- PI 634279. *Bromus catharticus* Vahl var. *catharticus***  
Cultivar. "Bellegarde"; W6 6221. Developed in France.

- PI 634280. *Bromus catharticus* Vahl var. *catharticus***  
Cultivar. "Meribel"; W6 6223. Developed in France.

- PI 634281. *Bromus catharticus* Vahl var. *catharticus***  
Cultivar. "Anabel"; W6 6224. Developed in France.

The following were collected by Harold E. Bockelman, USDA, ARS, National

Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 634282. *Festuca arundinacea* subsp. *orientalis*** (Hack.) Tzvelev  
Wild. UKR-99-134; W6 21791. . Collected 07/31/1999 in Krym, Ukraine.  
Latitude 44 deg. 28' 42'' N. Longitude 33 deg. 45' 32'' E. Elevation 280  
m. Near Pavliyka. Flat.

**PI 634283. *Bromus cappadocicus*** Boiss. & Balansa  
Wild. UKR-99-138; W6 21793. . Collected 07/31/1999 in Krym, Ukraine.  
Latitude 44 deg. 25' 57'' N. Longitude 33 deg. 47' 18'' E. Elevation 370  
m. Near Orlytype. South slope, moderately steep, rocky.

**PI 634284. *Bromus cappadocicus*** Boiss. & Balansa  
Wild. UKR-99-158; W6 21810. . Collected 08/01/1999 in Krym, Ukraine.  
Latitude 44 deg. 47' 32'' N. Longitude 34 deg. 37' 24'' E. Elevation 300  
m. Near Pryvitne off road A-294. South moderate slope.

The following were collected by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 11/02/1993.

**PI 634285. *Leymus angustus*** (Trin.) Pilg.  
Wild. X93009; W6 12927. Collected 08/06/1993 in Xinjiang, China.  
Latitude 44 deg. 11' N. Longitude 86 deg. 54' E. Elevation 532 m. Hutubi  
Stud and Dairy Farm, Xinjiang.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 634286. *Elymus gmelinii*** (Ledeb.) Tzvelev  
Wild. DJ-3843; MB-111-51-60 1991; W6 14362. Collected 08/10/1989 in  
Russian Federation. Elevation 350 m. Along Katun River near its  
confluence with the Sema River near Kamlak (Gorno Altay A.O.). Typical.

**PI 634287. *Elymus gmelinii*** (Ledeb.) Tzvelev  
Wild. DJ-3862; MB-106-71-80 1991; W6 14368. Collected 08/11/1989 in  
Russian Federation. From an open rocky hillside south of highway M-52 at  
610km marker near Tuetka (Gorno Altay A.O.). Typical.

**PI 634288. *Elymus gmelinii*** (Ledeb.) Tzvelev  
Wild. DJ-3900; MB-110-11-20 1991; W6 14376. Collected 08/12/1989 in  
Russian Federation. Elevation 1250 m. Among granite rock north side of

top of Cheketeman Pass, Gorno Altay A.O., from summit (660km marker on highway M-52 at 1250m elev.) to its base (656km marker and 1010m elev.). Typical.

**PI 634289. *Elymus pendulinus*** (Nevski) Tzvelev

Wild. DJ-3941; MB-112-11-20 1991; W6 14391. Collected 08/13/1989 in Russian Federation. Elevation 910 m. From a dry shrubby hillside. A side canyon to left of highway M-52 at 667km marker between Cheketeman Pass and Aktash, 1 km beyond the Cheketeman camp, Gorno Altay, A.O.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 634290. *Elytrigia intermedia*** (Host) Nevski **subsp. *intermedia***

Wild. UKR-99-118; W6 21779. . Collected 07/31/1999 in Krym, Ukraine. Latitude 44 deg. 30' 41'' N. Longitude 33 deg. 50' 48'' E. Elevation 420 m. In lake valley near Peredove. South slope, grazed, rocky.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 634291. *Elymus canadensis*** L.

Wild. D-3366; MB-84-6-10 1985; W6 14245. Collected in United States. Bottom of Cheyenne Canyon, 4 miles south Manitou Springs, Teller County, Colorado.

The following were collected by Douglas R. Dewey, USDA-ARS, Forage and Range Research Laboratory, Utah State University, UMC-63, Logan, Utah 84322, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Donated by Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States. Received 12/10/1993.

**PI 634292. *Elymus mutabilis*** (Drobow) Tzvelev

Wild. DJ-4031; MB-113-11-20 1991; W6 14408. Collected 08/19/1989 in Russian Federation. Elevation 1210 m. In a pine forest in vicinity of the "Tuetka camp" about 37km west of Tuetka, Gorno Altay A.O., on secondary gravel road. Culms to 120cm.

**PI 634293. *Elymus mutabilis*** (Drobow) Tzvelev

Wild. DJ-4043; MB-114-31-40 1991; W6 14411. Collected 08/21/1989 in Russian Federation. Elevation 540 m. Moist ravine on mountainside west of the Kamlak Field Station of the Central Siberian Botanical Garden (Gorno Altay A.O.) from 540 meters at bottom to 840 meters at top. Awns

short. Slightly pigmented.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 03/06/1997.

**PI 634294. *Achnatherum splendens*** (Trin.) Nevski

Wild. 96S-2; W6 19550. Collected 08/1996 in Mongolia. Latitude 45 deg. 50' 58'' N. Longitude 100 deg. 25' 42'' E. Elevation 1640 m. Mongolia, Bayanhongor Aimag, Bayantsagaan Sum, 10 km south of Bunkhant Bag. 5% south slope. Outwash plain with site on and adjacent to low terrace. Site location is in the Desert Steppe Ecological zone. Soils are raw outwash materials, alluvium, consisting of gravels and very coarse sand. Excessively well drain. DOMINANT VEG: *Achnatherum splendens* + *Elymus chinensis*, *Chenopodium album*, *Setaria viridula*, *Artemisia macrocephala*.

**PI 634295. *Achnatherum splendens*** (Trin.) Nevski

Wild. 96S-5; W6 19552. Collected 08/1996 in Mongolia. Latitude 45 deg. 25' 14'' N. Longitude 99 deg. 46' 34'' E. Elevation 1265 m. Bayanhongor Aimag, Bayantsagaan Sum, 20 km south of Bunkhant Bag. 2% northwest slope. Desert pediment slope with site adjacent to small, dry stream course. Soils consist of brown, very gravelly sandy loam with continuous surface covering of fine gravel. Site has salt layer visible at 76 cm. DOMINANT VEG: *Zygophyllum pigonium* + *Ceratoides arborescens*/*Stipa gobica*, *Elymus* sp., *Salsola* sp., *Convolvulus korchikova*, *Artemisia* spp., *Allium mongolicum*.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 634296. *Achnatherum splendens*** (Trin.) Nevski

Wild. 98HT-206; W6 21289. Collected 09/1998 in Mongolia. Latitude 48 deg. 30' 42'' N. Longitude 110 deg. 26' 55'' E. Elevation 1036 m. Binder Sum, Henti Aimag. Edge of a medium-sized river valley about 1 km SW of lake. Soils are gravelly sand. Associated vegetation: *Achnatherum*.

**PI 634297. *Achnatherum splendens*** (Trin.) Nevski

Wild. 98HT-46; W6 21171. Collected 09/1998 in Mongolia. Latitude 48 deg. 8' 34'' N. Longitude 109 deg. 22' 5'' E. Elevation 1402 m. Omnodelger Sum, Henti Aimag. Slope about 1 km to west side of large lake and marshy stream bottom. Moose monument is just north of site. Soils are deep gravelly loam. Both forest and open grassland areas. Associated vegetation: *Larix* forest dominates at higher elevation, grass and forbs dominate between forest and lake-riparian zone.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant

Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 634298. *Stipa capillata* L.**

Wild. UKR-99-101; W6 21767. . Collected 07/30/1999 in Krym, Ukraine. Latitude 44 deg. 30' 48'' N. Longitude 33 deg. 29' 32'' E. Elevation 220 m. Near coast and south of Sevastopol. Flat, along road, disturbed, old orchard area.

**PI 634299. *Stipa capillata* L.**

Wild. UKR-99-090; W6 21760. . Collected 07/30/1999 in Krym, Ukraine. Latitude 44 deg. 30' 55'' N. Longitude 33 deg. 33' 23'' E. Elevation 260 m. On road to Sevastopol. South slope, rocky, very dry.

The following were donated by John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States . Received 02/08/1990.

**PI 634300. *Pascopyrum smithii* (Rydb.) A. Love**

Wild. 84; W6 3301. Collected 1979 in North Dakota, United States. Elevation 678 m. Ward County. LD: NWSE36 159N 88W.

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/24/1992.

**PI 634301. *Dactylis* sp.**

Wild. B92-32; W6 10759. Collected 06/27/1992 in Bulgaria. Elevation 1 m. Along roadside at Resort Dijuin, S of Burgas, on road from Burgas to Ahtopol.

**PI 634302. *Festuca ovina* L.**

Wild. B96-146; W6 19336. Collected 07/1996 in Bulgaria. Latitude 41 deg. 59' 43'' N. Longitude 24 deg. 48' 1'' E. Elevation 1064 m. Open grassland, with wild *Prunus* every 60-90 ft. southwest.

**PI 634303. *Festuca ovina* L.**

Wild. B96-177; W6 19364. Collected 07/1996 in Bulgaria. Latitude 41 deg. 41' 52'' N. Longitude 24 deg. 41' 28'' E. Elevation 1216 m. 1km south of Chepalari, on steep slope. west.

The following were collected by T.A. Campbell, USDA-ARS, Germplasm Quality and Enhancement Lab, Building 001, Room 339, Beltsville, Maryland 20705, United States; John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Larry K. Holzworth, USDA-NRCS State Office, Federal Bldg., Room 443, 10 E. Babcock, Bozeman,

Montana 59715-4704, United States. Received 12/1997.

**PI 634304. *Festuca ovina* L.**

Wild. X97-136; W6 20291. Collected 08/1997 in Xinjiang, China. Latitude 43 deg. 28' 4" N. Longitude 81 deg. 6' 38" E. Elevation 2040 m. 55 km south of Yili City, Xinjiang. Dry hillside, stoney soil, grazed moderately. Slope is 30% with south to southeast aspect.

The following were collected by Thomas A. Jones, USDA-ARS, Forage and Range Research, Utah State University, Logan, Utah 84322-6300, United States. Received 09/1998.

**PI 634305. *Leymus cinereus* (Scribn. & Merr.) A. Love**

Wild. T-1011; W6 20958. Collected in Oregon, United States. Latitude 44 deg. 41' N. Longitude 117 deg. 39' W. I-84 11 miles northwest of Durkee exit in Baker County.

**PI 634306. *Leymus cinereus* (Scribn. & Merr.) A. Love**

Wild. T-1014; W6 20961. Collected in Washington, United States. Southwest edge of town of Lacrosse in Whitman County.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Mark E. Majerus, USDA-NRCS, Plant Materials Center, Rt. 2, Box 1189, Bridger, Montana 59014-9718, United States; Susan R. Winslow, USDA-NRCS, Bridger PMC, Route 2, Box 1189, Bridger, Montana 59014-9718, United States. Received 05/05/1999.

**PI 634307. *Bromus inermis* subsp. *pumpellianus* (Scribn.) Wagnon**

Wild. 98HV-180; W6 21555. Collected 09/1998 in Mongolia. Latitude 50 deg. 33' 50" N. Longitude 100 deg. 36' 6" E. Elevation 1829 m. Chandmanundur Sum, Hovsgol Aimag, 38 km west of Hohoo. Crest of small pass, edge of larch forest, mountain light brown soil. Associated vegetation: *Larix sibiricus*, *Festuca ovina*, *Bromus pumpellianus*, *Vicia cracca*, *Aster alpinus*, *Artemisia laciniata*, *Dendranthema zawadskii*, *Geranium pseudosibiricum*.

The following were collected by Harold E. Bockelman, USDA, ARS, National Small Grains Collection, 1691 S 2700 W, Aberdeen, Idaho 83210, United States; Richard C. Johnson, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Roman Boguslavsky, National Centre for Plant Genetic Resources of Ukraine, Lab. for Introduction & Storage of Plant Genetic Resources, Yurjev Institute of Plant Production, Kharkiv, Kharkiv 61060, Ukraine; Vladislav Korzhenevsky, State Nikitsky Botanical Gardens, Department of Flora & Vegetation, Yalta, Krym 334267, Ukraine. Received 08/15/1999.

**PI 634308. *Lolium rigidum* subsp. *lepturoides* (Boiss.) Sennen & Mauricio**

Wild. UKR-99-165; W6 21815. . Collected 08/01/1999 in Krym, Ukraine. Latitude 44 deg. 47' 32" N. Longitude 34 deg. 37' 24" E. Elevation 300 m. Near Pryvitne off road A-294. South moderate slope.

**PI 634309. *Lolium rigidum* subsp. *lepturoides* (Boiss.) Sennen & Mauricio**

Wild. UKR-99-011; W6 21707. . Collected 07/27/1999 in Krym, Ukraine.  
Latitude 44 deg. 30' 39'' N. Longitude 34 deg. 14' E. Elevation 300 m.  
Near and around Nikita Botanical. South slope, rocky.

**PI 634310. *Lolium rigidum* subsp. *lepturoides*** (Boiss.) Sennen & Mauricio  
Wild. UKR-99-030; W6 21720. . Collected 07/28/1999 in Krym, Ukraine.  
Latitude 44 deg. 24' 39'' N. Longitude 34 deg. 0' 15'' E. Elevation 195  
m. Near Simeiz along road A-294. South slope, rocky, dry, highly diverse  
calcarous.

The following were developed by P. Pommers; V. Zeibots. Donated by P.  
Berzins, Latvian State Res. Inst. of Agriculture, Skriveri - 1, Aizkraukle  
Dist., Latvia. Received 04/08/1993.

**PI 634311. *Dactylis glomerata* L.**  
Cultivar. "PRIEKULU 30"; W6 11518. Growth data in Latvia, heads 36 days,  
blooms 57 days, matures 77 days, seed yield 5-6 t/ha, dry matter 11-12  
t/ha, and good winter hardiness.

The following were collected by J. Jarvie, Logan, Utah, United States; Y.  
Cauderon, Versailles, Yvelines, France. Donated by Kevin B. Jensen, USDA,  
ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah  
84322-6300, United States. Received 11/17/1993.

**PI 634312. *Elytrigia juncea* (L.) Nevski**  
Wild. D-3674; BRG-88 #24; MA-8-71--80; W6 13910. Collected in France.  
Mediterranean coast of France.

The following were donated by Milton C. Engelke, Texas A&M University,  
Research and Extension Center, 17360 Coit Road, Dallas, Texas 75252, United  
States. Received 09/14/1993.

**PI 634313. *Agrostis* sp.**  
Uncertain. 27; BE-5897; Q 32580; W6 18295. Collected in China.

The following were developed by International Maize & Wheat Improvement  
Center, Apdo. Postal 6-641, Lisboa 27, Mexico City, Federal District 06600,  
Mexico. Donated by Bent Skovmand, International Maize & Wheat, Improvement  
Center, Wheat Germplasm Bank, Mexico City, Federal District 06600, Mexico.  
Received 06/15/2001.

**PI 634314. *Triticum aestivum* L. subsp. *aestivum***  
Cultivar. Pureline. "STAR"; SWM7215-2Y-2Y-0Y-2Y-0Y; BW11999; NSGC 9358.  
. Pedigree - Lilifen/Sturdy//Pavon 76 sib.

**PI 634315. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**  
Cultivar. Pureline. "CANELO"; CD48745-2Y-2M-1Y-1M-0Y; DW8675; NSGC 9359.  
. Pedigree - Alcatraz/Crex.

**PI 634316. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**  
Cultivar. Pureline. "SPOT 2"; CD88715-3M-030YRC-040PAP-4Y-0PAP; DW10915;  
NSGC 9360. .

**PI 634317. *Triticum turgidum* subsp. *durum*** (Desf.) Husn.  
Cultivar. Pureline. "PORRON"; CD85328-A-1YRC-040M-030YRC-1M-0Y; DW10878;  
NSGC 9361. . Pedigree - Actitis/Altar 84//Pichoneta.

**PI 634318. *Triticum turgidum* subsp. *durum*** (Desf.) Husn.  
Cultivar. Pureline. "AFUWAN"; CD91930-5PAP-1Y-040M-1Y-0PAP; DW8529; NSGC  
9362. . Pedigree - Sula/Alcatraz//Altar 84/Araos.

The following were developed by Rutgers University, New Jersey Agriculture Experiment Station, New Brunswick, New Jersey 08903, United States; Pickseed West, Inc., P.O. Box 888, 33149 Highway 99E, Tangent, Oregon 97389, United States; New Jersey Agr. Exp. Sta.. Received 12/06/2003.

**PI 634319 PVPO. *Lolium perenne* L.**  
Cultivar. "BLAZER 4"; Pick MDR. PVP 200400007.

The following were developed by Peggy Thaxton, Texas A&M University, Dept. of Soil and Crop Science, College Station, Texas 77843, United States; Kamal M. El-Zik, Texas A&M University, Department of Soil & Crop Sciences, College Station, Texas 77843, United States. Received 11/17/2003.

**PI 634320. *Gossypium hirsutum* L.**  
Breeding. CABCSV506S-1-94. GP-777. Pedigree - Tamcot CAB-CS and Stoneville 506, both commercial varieties using short-cycle recurrent selection method with greenhouse and laboratory screening at College Station, TX. Plant parts glabrous with normal leaves and bracts. Resistant to bacterial blight (*Xanthomonas campestris*). On the basis of stand establishment in soils naturally infested with *Pythium ultimum* and *Rhizoctonia solani*, has stand establishment and seedling vigor similar to resistant check. Lint yield less than Tamcot Sphinx but similar to Tamcot CAB-CS but has improved High Volume Instrument (HVI) fiber qualities. Has 4% longer fiber, and 14% stronger fiber than Tamcot CAB-CS.

**PI 634321. *Gossypium hirsutum* L.**  
Breeding. HGPICG14QH-1-94. GP-778. Pedigree - CAHUGARPIH-88 (PI 602998) / CHG14CBD3H-91 (unreleased breeding line) using short-cycle recurrent selection method with greenhouse and laboratory screening at College Station, TX. Early maturing, pubescent strain with normal leaves and bracts. Resistance to bacterial blight (*Xanthomonas campestris*). On the basis of stand establishment in soils naturally infested with *Pythium ultimum* and *Rhizoctonia solani*, stand establishment and seedling vigor similar to resistant check. Produced lint yield similar to Tamcot Sphinx and Deltapine 50. However, has improved fiber bundle strength averaging 32.1 g/tex, 6.6% higher than Tamcot Sphinx and 12.6% than Deltapine 50. Elongation value of 6.1 compared to 5.5 for Tamcot Sphinx.

**PI 634322. *Gossypium hirsutum* L.**  
Breeding. HQCULHQPIH-1-95. GP-779. Pedigree - CBD3CDULBH-2-9 (unreleased breeding line) / CBD3DUBPIH-3-01 (unreleased breeding line) using short-cycle recurrent selection method with greenhouse and laboratory screening at College Station, TX. Early maturing pubescent strain with normal leaves and bracts. Resistance to bacterial blight (*Xanthomonas campestris*). On the basis of stand establishment in soils naturally infested with *Pythium ultimum* and *Rhizoctonia solani*, stand

establishment and seedling vigor similar to resistant check. Yield potential higher than Tamcot Sphinx and Deltapine 50. Similar to Tamcot Sphinx and Deltapine 50 for fiber length, uniformity, strength and micronaire. Intermediate level of resistance to Fusarium wilt (*Fusarium oxysporum*) when compared to the resistant and susceptible checks.

**PI 634323. *Gossypium hirsutum* L.**

Breeding. PD22CUBQWS-1-95. GP-780. Pedigree - MAR5PD208S-2-9(ubl) / HQWIHGUCUBS-2-92(ubl) using short-cycle recurrent selection method with greenhouse and laboratory screening at College Station, TX. Plant parts glabrous with normal leaves and bracts. Resistant to bacterial blight (*Xanthomonas campestris*). On the basis of stand establishment in soils naturally infested with *Pythium ultimum* and *Rhizoctonia solani*, stand establishment and seedling vigor similar to resistant check. Averaged 24% higher than stand establishment and seedling vigor similar to resistant check. Averaged 24% higher lint yield than Tamcot CAB-CS with a fiber strength similar to Tamcot Sphinx and a 10% higher than Tamcot CAB-CS.

**PI 634324. *Gossypium hirsutum* L.**

Breeding. PD24HQBPPIH-1-94. GP-781. Pedigree - MAR5PD208S-4-90 (PI 603009) / CBD3DUBPIH-3-91(ubl) using short-cycle recurrent selection method with greenhouse and laboratory screening at College Station, TX. Early maturing, pubescent strain with normal leaves and bracts. Resistance to bacterial blight (*Xanthomonas campestris*). On the basis of stand establishment in soils naturally infested with *Pythium ultimum* and *Rhizoctonia solani*, stand establishment and seedling vigor similar to resistant check. Boll large and yield potential comparable to Tamcot Sphinx and Deltapine 50 with an average upper half mean length of 1.10 in and fiber bundle strength of 28.8 g/tex.

**PI 634325. *Gossypium hirsutum* L.**

Breeding. SPNXCGBP6H-1-95. GP-782. Pedigree - Tamcot Sphinx (PI 593801) / CUBC4HGPP6S-1-91 (unreleased breeding line) using short-cycle recurrent selection method with greenhouse and laboratory screening at College Station, TX. Early maturing, pubescent strain with normal leaves and bracts. Resistance to bacterial blight (*Xanthomonas campestris*). On the basis of stand establishment in soils naturally infested with *Pythium ultimum* and *Rhizoctonia solani*, stand establishment and seedling vigor similar to resistant check. Averaged over locations, lint yield and fiber quality similar to Tamcot Sphinx and Deltapine 50. Lint fractions averaged 7.6 lower than that of Tamcot Sphinx, and similar to Deltapine 50.

**PI 634326. *Gossypium hirsutum* L.**

Breeding. SPNXCHGLBH-1-94. GP-783. Pedigree - Tamcot Sphinx (PI 592801) / CBUHGLBPIS-1-91 (unreleased breeding line) using short-cycle recurrent selection method with greenhouse and laboratory screening at College Station, TX. Early maturing, pubescent strain with normal leaves and bracts. Resistance to bacterial blight (*Xanthomonas campestris*). On the basis of stand establishment in soils naturally infested with *Pythium ultimum* and *Rhizoctonia solani*, stand establishment and seedling vigor similar to resistant check. Averaged over locations, lint yield and fiber quality similar to Tamcot Sphinx and Deltapine 50. Lint fraction similar to that of Tamcot Sphinx, and both were similar to Deltapine 50. Based on insect data, supported fewer fleahoppers than the other cvs., and produced the highest yield.

**PI 634327. *Gossypium hirsutum* L.**

Breeding. SPNXHQBPIS-1-94. GP-784. Pedigree - Tamcot Sphinx (PI 592801) / CBD3CUBPIH-91 (unreleased breeding line) using short-cycle recurrent selection method with greenhouse and laboratory screening at College Station, TX. Plant parts glabrous with normal leaves and bracts. Resistant to bacterial blight (*Xanthomonas campestris*). On the basis of stand establishment in soils naturally infested with *Pythium ultimum* and *Rhizoctonia solani*, stand establishment and seedling vigor similar to resistant check. Lint yield less than Tamcot Sphinx and similar to Tamcot CAB-CS but has improved High Volume Instrument (HVI) fiber qualities. Has a 4% longer fiber, and 14% and 8% stronger fiber respectively than Tamcot CAB-CS.

The following were developed by Paul G. Rothman, USDA-ARS, Cereal Rust Laboratory, University of Minnesota, St. Paul, Minnesota 55108, United States ; Matthew B. Moore, University of Minnesota, Minnesota Agric. Exp. Station, Dept. of Plant Pathology, St. Paul, Minnesota, United States. Donated by Martin Carson, USDA, ARS, Cereal Disease Laboratory, 1551 Lindig Street, St. Paul, Minnesota 55108, United States. Received 12/19/2003.

**PI 634328. *Avena sativa* L.**

Breeding. Pureline. MN841402; CRL-O-841402; NSGC 9363. Pedigree - Lodi/4/LMHJA/Clintland//Rodney/3/Black Mesdag/AB101 LMHJA = Landhafer/Mindo/Hajira/Joanette/Andrew. Carries adult plant resistance to crown rust.

**PI 634329. *Avena sativa* L.**

Breeding. Pureline. MN841443; CRL-O-841443; NSGC 9364. Pedigree - Black Mesdag/AB101//CI7467/3/Rodney/4/LMHJA/Clintland//Rodney/3/Black Mesdag/AB101 LMHJA = Landhafer/Mindo/Hajira/Joanette/Andrew. Carries adult plant resistance to crown rust.

**PI 634330. *Avena sativa* L.**

Breeding. Pureline. MN841801; CRL-O-841801; NSGC 9365. Pedigree - Florad/Coker58-7/3/CI7558//Black Mesdag/AB101. Carries adult plant resistance to crown rust.

**PI 634331. *Avena sativa* L.**

Breeding. Pureline. MN841804; CRL-O-841804; NSGC 9366. Pedigree - CI7683//Black Mesdag/AB101/3/Rodney/4/CI7558//Black Mesdag/AB101. Carries adult plant resistance to crown rust.

**PI 634332. *Avena sativa* L.**

Breeding. Pureline. MN841810; CRL-O-841810; NSGC 9367. Pedigree - Black Mesdag/AB101//CI7467/3/Rodney/4/Florad/Coker58-7. Carries adult plant resistance to crown rust.

The following were developed by William D. Branch, University of Georgia, Coastal Plain Experiment Station, Department of Crop and Soil Sciences, Tifton, Georgia 31794-0748, United States. Received 12/11/2003.

**PI 634333. *Arachis hypogaea* L. subsp. *hypogaea***

Cultivar. "GEORGIA-03L"; GA 962533. PVP 200400089; CV-79. Pedigree - Georgia Browne / VA-C 92R. Podded runner-type having a distinctively

higher percentage of fancy pods (riding a 1.35 cm spacing set on pod presizer). Pod size similar to Virginia-types (>40% fancy pods), however seed weight similar to runner-types (65-70 g 100-1). High level of resistance to spotted wilt disease caused by Tomato spotted wilt virus (TSWV) comparable to Georgia Green. Combines TSWV-resistance with large smooth pods and excellent yielding ability. In 15 tests conducted at multiple locations in Georgia from 1998 to 2002, found to be significantly higher in yield than Georgia Green with the same high dollar value return per hectare. Also produced about twice the percentage (37 vs. 19%) of jumbo runner seed (Riding a 8.33 by 19.05 mm slotted screen) as compared to Georgia Green, but had fewer medium and No. 1 seed. Similar maturity, pink testa color, protein content, oil content, O/L ratio, and roasted flavor as Georgia Green and Florunner. Very good stability and a wide range of adaptability.

The following were developed by M. T. Moreno, Instituto Nacional de Investigaciones Ag, CIRDA 10 Apdo 240, Cordoba, Cordoba, Spain; Josefa Rubio, Centro de Investigacion y Formacion Agraria, Alameda del Obispo, Apdo. 3092, Cordoba, Cordoba, Spain; C. Martinez, Centro de Investigacion y Formacion Agraria, Apto 4240, Cordoba, Cordoba 14080, Spain; Juan Gil-Ligero, Universidad de Cordoba, Dpto. Genetic, Avd. Menendez Pidal s/n, Cordoba, Cordoba, Spain. Received 12/08/2003.

**PI 634334. *Cicer arietinum* L.**

Breeding. CA2954. GP-236. Pedigree - (ICCL81001 x CA2156) F1 x ILC72. Kabuli type chickpea with semierect growth habit and resistance to both Ascochyta blight (*Ascochyta rabiei*) and Fusarium wilt (*Fusarium oxysporum*) races 0 and 5. Both diseases are the most important constraining chickpea production. Evaluated during four years and cv. Pringao, a resistant cultivar to Ascochyta blight developed in our chickpea breeding program, was used as control. This line had the highest mean yield (1991 k/ha), Pringao was 1884 k/ha. Seeds weighed 32 g 100 seed-1, which compared with Pringao (37.7 g 100 seed-1).

The following were developed by James Klein, Southern Illinois University, Dept. of Plant and Soil Science, Carbondale, Illinois 62901-4415, United States; Mike E. Schmidt, Southern Illinois University, Department of Plant and Soil Sciences, MC 4415, Carbondale, Illinois 62901-4415, United States. Received 12/15/2003.

**PI 634335. *Glycine max* (L.) Merr.**

Cultivar. "LS94-3207". CV-467. Pedigree - Pharaoh x Hartwig. Maturity Group IV with resistance to multiple races of soybean cyst nematode (*Heterodera glycines*) and has a high level of resistance to soybean sudden death syndrome (*Fusarium solani*). Also resistant to frog-eye leafspot (*Cercospora sojae*), stem canker (*Diaporthe phaseolorum*) and is moderately resistant to root knot nematode (*Meloidogyne incognita*). Determinate in growth habit and has white flowers, tawny pubescence, and brown pod walls. Relative maturity of 4.7. Plant height averages 65 cm. Lodging score averages 2.0 (where 1=all plants upright to 5=all plants prostrate). Seedcoats shiny yellow with black hila. Seed quality scores average 2.0 (where, 1=excellent to 5=poor). Seed size is approx. 122 mg seed-1 and seed composition averages 411 g kg-1 protein and 201 g kg-1 oil on a dry weight basis.

The following were developed by A. Doug Brede, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States; S.H. Samudio, J.R. Simplot Co., 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 12/08/2003.

**PI 634336. *Lolium perenne* L.**

Cultivar. "EXTREME". CV-235. Pedigree - Developed from the progenies of 11 maternal clones: 27% Allaire, 18% Palmer II, 18% PI 231590, 12% Advent, 9% APM, 9% Brightstar, 5% Cutter, and 2% Gator. Morphological measurements were taken at Post Falls, ID, which showed initial anthesis averaged from June 13 to 22. Mature plant height averaged from 62.3 to 65.2 cm and flag leaf height averaged from 28.2 to 29.6 cm. The variety Caddieshack looks the most similar to this cv. in the field. Later in maturity than Caddieshack. Entered in the 1994 National Turfgrass Evaluation Program's perennial ryegrass test, where demonstrated medium-fine leaf texture, good spring and winter density, and good spring, summer, and fall living ground cover. In these trials, displayed moderate to good resistance to pink snow mold (*Microdochium nivale*), melting out (*Drechslera* spp.), and red thread (*Laetisaria fuciformis*). Maintained favorable living ground cover after traffic treatments in Missouri. Developed for year-round turf on lawns, golf course fairways and roughs, industrial sites, and parks in areas where perennial ryegrass is adapted for turf. Can be used in blends and mixtures with other.

**PI 634337. *Lolium perenne* L.**

Cultivar. "MONTEREY II". CV-236. Pedigree - Developed from the progenies of 33 clones traced maternally to the following: 36% PI 231590, 16% APM, 12% SR4000, 6% Advent, 6% Saturn, 3% Palmer II, 3% Yorktown III, 3% selections from old turf in Idaho, 2% Prizm, 2% Affinity, 2% Brightstar, 2% Cowboy, 2% Gettysburg, 2% 92-0142 breeding line derived from 62 plant polycross, and less than 1% each from Quickstart, Calypso, Omega II, Pennant, Repell, and SR4200. In seed production, medium maturity with initial head exertion and anthesis about 5 d later than APM, the variety most similar in production. Seed weight less than APM, having a shorter seed length and thinner seed width. Entered in the 1999 National Turfgrass Evaluation Program's perennial ryegrass test where demonstrated good establishment, spring and summer density, and spring, summer, and fall living ground cover. In these trials, displayed moderate to good resistance to pink snow mold (*Microdochium nivale*), red thread (*Laetisaria fuciformis*), large brown patch (*Rhizoctonia solani*), typhula blight (*Typhula incarnata*), and melting out (*Drechslera* spp.). Maintained favorable living ground cover after traffic treatments in Missouri. Developed for year-round use on lawns, fairways and roughs, industrial sites, and parks. Turf-type perennial ryegrass with medium-dark green color, medium-fine texture, medium density, and an upright growth habit at initial anthesis.

The following were developed by Don R. Viands, Cornell University, Department of Plant Breeding, 523 Bradfield Hall, Ithaca, New York 14853, United States; C.C. Lowe, Cornell University, Dept. of Plant Breeding and Biometry, Ithaca, New York 14853, United States; J.L. Hansen, Cornell University, Dept. of Plant Breeding and Biometry, Ithaca, New York 14853-1902, United States; Gary C. Bergstrom, Cornell University, Dept. of Plant Pathology, Ithaca, New York, United States; Jill Miller-Garvin, Cornell University, Department of Plant

Breeding, 523 Bradfield Hall, Ithaca, New York 14853, United States; Ed Thomas, Cornell University, Department of Plant Breeding, 101 H.H. Love Fieldhouse, Ithaca, New York 14850, United States; B.P. Tillapaugh, Wyoming Co. Cooperative Extension, 401 N. Main Street, Warsaw, New York 14569, United States; J.L. Neally, Cornell University, Dept. of Plant Breeding, Ithaca, New York 14853, United States. Received 11/21/2003.

**PI 634338. *Lotus corniculatus* L.**

Cultivar. "PARDEE". CV-11. Pedigree - Derived from multiple germplasm available in the 1970's. Selected for two cycles of recurrent phenotypic selection for resistance to fusarium wilt (*Fusarium oxysporum*) in a northern New York field with a history of the disease. This selection was followed by one cycle of phenotypic selection for forage vigor after one year in a spaced planted field nursery in Ithaca, NY, followed by two cycles of recurrent phenotypic selection for resistance to fusarium wilt after inoculating plants in a greenhou. Upright, hay-type birdsfoot trefoil like Viking, but with earlier maturity than both Norcen and Viking. About 50% plants resistant to fusarium wilt, whereas other cultivars are susceptible. In most location-years in New York, higher forage yield than Norcen, and higher or equal yield to Viking. In fields with or without noticeable disease, plant stand after 2 years is higher than for either Viking or Norcen. Also has a darker orange-yellow colored flower compared to the yellow flowers of other cultivars.

The following were developed by Don R. Viands, Cornell University, Department of Plant Breeding, 523 Bradfield Hall, Ithaca, New York 14853, United States; J.L. Hansen, Cornell University, Dept. of Plant Breeding and Biometry, Ithaca, New York 14853-1902, United States; Ed Thomas, Cornell University, Department of Plant Breeding, 101 H.H. Love Fieldhouse, Ithaca, New York 14850, United States; J.L. Neally, Cornell University, Dept. of Plant Breeding, Ithaca, New York 14853, United States. Received 11/24/2003.

**PI 634339. *Medicago sativa* L. subsp. *sativa***

Cultivar. "ONEIDA ULTRA". CV-201. Pedigree - 34-clone synthetic originating from Oneida VR (75%) and Flemish germplasm that were selected for resistance to bacterial wilt (*Clavibacter michiganense*), fusarium wilt (*Fusarium oxysporum*), verticillium wilt, (*Verticillium albo-atrum*), anthracnose (Race 1) (*Colletotrichum trifolii*), and phytophthora root rot (*Phytophthora megasperma*). This selection was followed by one cycle of phenotypic selection in the field for plant vigor and lower forage neutral detergent fiber concentration in the second. Moderately dormant with fall dormancy similar to the FD4 check. High resistance to bacterial wilt, fusarium wilt, and verticillium wilt. Also has resistance to anthracnose (Race 1), and phytophthora root rot. Susceptible to aphanomyces root rot (Race 1) (*Aphanomyces euteiches*). Across several locations in NY and Ontario, Canada, averaged 0.45 Mg ha<sup>-1</sup> per year more dry forage than Oneida VR, 1.50 Mg ha<sup>-1</sup> more than Vernal, and 0.69 Mg ha<sup>-1</sup> more than Arrow in two to four production years. Neutral detergent fiber, acid detergent fiber, and relative feed value of the forage is equivalent to those of Arrow. Flower color of the Syn. 2 generation is 100% purple and trace cream, yellow, variegated, and white.

**PI 634340. *Medicago sativa* L. subsp. *sativa***

Cultivar. "SEEDWAY 9558". CV-202. Pedigree - Cross of two plant populations: 1) Iroquois-type germplasm sources crossed onto Oneida VR

and 2) germplasm mostly derived from Oneida VR. Dormant with fall dormancy similar to the FD3 check. High resistance to bacterial wilt, fusarium wilt, verticillium wilt, and anthracnose (Race 1). Resistant to phytophthora root rot, and is susceptible to aphanomyces root rot (Race 1) (*Aphanomyces euteiches*), and spotted alfalfa aphid (*Therioaphis maculata*). In NY, averaged 0.65 Mg ha<sup>-1</sup> per year more dry forage than Oneida VR and 0.99 Mg ha<sup>-1</sup> more than Vernal in three production years. Forage quality (acid detergent fiber, neutral detergent fiber, and relative feed value) is between that of the high- and low-quality check cultivars WL 322 HQ and Vernal, respectively. Flower color of the Syn. 2 generation is 80% purple, 19% variegated, 1% cream, and a trace of yellow and white.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 12/30/2003.

**PI 634341 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "DP 449 BG/RR". PVP 200300135.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 12/30/2003.

**PI 634342 PVPO. *Lactuca sativa* L.**  
Cultivar. "LIBERTY". PVP 200400027.

The following were developed by Blue Moon Farms, United States. Received 12/30/2003.

**PI 634343 PVPO. *Lolium perenne* L.**  
Cultivar. "PAVILION". PVP 200400030.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 12/30/2003.

**PI 634344 PVPO. *Phaseolus vulgaris* L.**  
Cultivar. "ROMANO GOLD". PVP 200400031.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 12/30/2003.

**PI 634345 PVPO. *Lactuca sativa* L.**  
Cultivar. "NAPOLEON". PVP 200400033.

The following were developed by Syngenta Seeds, Inc., United States. Received 12/30/2003.

**PI 634346 PVPO. *Phaseolus vulgaris* L.**  
Cultivar. "CARSON". PVP 200400034.

The following were developed by Agrigenetics, Inc. d/b/a/ Mycogen Seeds,

United States. Received 12/30/2003.

**PI 634347 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "4XP811". PVP 200400036.

**PI 634348 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "6XN442". PVP 200400037.

**PI 634349 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "BE9514". PVP 200400038.

**PI 634350 PVPO. *Zea mays* L. subsp. *mays***  
Cultivar. "MN7224". PVP 200400039.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 12/30/2003.

**PI 634351 PVPO. *Allium cepa* L.**  
Cultivar. "WYL 77-5128A". PVP 200400040.

**PI 634352 PVPO. *Allium cepa* L.**  
Cultivar. "WYL 77-5128B". PVP 200400041.

**PI 634353 PVPO. *Allium cepa* L.**  
Cultivar. "WYL 77-5168A". PVP 200400042.

**PI 634354 PVPO. *Allium cepa* L.**  
Cultivar. "WYL 77-5168B". PVP 200400043.

The following were developed by Plant Breeders 1, Inc., United States. Received 12/30/2003.

**PI 634355 PVPO. *Hordeum vulgare* L.**  
Cultivar. "PBI-95-2R-522". PVP 200400044.

The following were developed by University of Georgia Research Foundation, Inc., Georgia, United States. Received 12/30/2003.

**PI 634356 PVPO. *Mucuna pruriens* (L.) DC.**  
Cultivar. "GEORGIA BUSH". PVP 200400046. Velvet bean.

The following were developed by D&PL Technology Holding Company, LLC, Netherlands. Received 12/30/2003.

**PI 634357 PVPO. *Gossypium hirsutum* L.**  
Cultivar. "DP 432 RR"; 01X99R. PVP 200400047.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 12/30/2003.

**PI 634358 PVPO. *Solanum melongena* L.**  
Cultivar. "EZZ 24-0547". PVP 200400049.

The following were developed by Pybas Vegetable Seed Company, P.O. Box 868, Santa Maria, California 93456, United States. Received 12/30/2003.

**PI 634359 PVPO. *Apium graveolens* L.**  
Cultivar. "DUTCHESS". PVP 200400050.

The following were developed by Rutgers University - Cook College, New Brunswick, New Jersey, United States. Received 12/30/2003.

**PI 634360 PVPO. *Festuca arundinacea* Schreb.**  
Cultivar. "RIVERSIDE"; 5301. PVP 200400051.

□

## Species Index

Achnatherum hymenoides (632634)  
Achnatherum splendens (634294-634297)  
Agastache nepetoides (633635)  
Agastache rugosa (633636-633637)  
Agropyron cristatum (632509, 632533)  
Agropyron dasyanthum (632565)  
Agropyron fragile (632475-632476, 632574, 634242-634244)  
Agropyron michnoi (632486-632487, 632577)  
Agrostis clavata (632483, 632584)  
Agrostis mongolica (632490, 632549)  
Agrostis sp. (634313)  
Agrostis stolonifera var. palustris (632687, 633847)  
Agrostis trinii (632559)  
Allium cepa (633859, 634351-634354)  
Alopecurus arundinaceus (632571)  
Alopecurus myosuroides (632478, 633718)  
Alyssum alyssoides (633052-633054)  
Alyssum dasycarpum var. minus (633055)  
Alyssum flahaultianum (633056)  
Alyssum granatense (633057)  
Alyssum lenense (633058)  
Alyssum linifolium (633059)  
Alyssum minutum (633060)  
Alyssum montanum (633061)  
Alyssum nebrodense (633062)  
Alyssum simplex (633063-633065)  
Alyssum stapfii (633066)  
Alyssum tortuosum (633067)  
Alyssum wulfenianum (633068)  
Amaranthus acutilobus (633578-633579)  
Amaranthus albus (633580-633581)  
Amaranthus crispus (633582)  
Amaranthus cruentus (633584-633585, 633592)  
Amaranthus deflexus (633576-633577)  
Amaranthus dubius (633588)  
Amaranthus hypochondriacus (633589, 633596)  
Amaranthus muricatus (633583)  
Amaranthus palmeri (633586-633587, 633593)  
Amaranthus tricolor (633590-633591, 633594-633595)  
Ampelopsis japonica (633644)  
Apium graveolens (634359)  
Arachis hypogaea (633041, 633044, 633046-633048, 633866, 633912)  
Arachis hypogaea subsp. hypogaea (634333)  
Avena sativa (633005-633006, 633779-633794, 633991, 634016, 634328-634332)  
Berteroa incana (633069-633074)  
Beta vulgaris (632750, 633001-633004, 634018, 634210, 634216-634218)  
Beta vulgaris subsp. vulgaris (632960, 633733, 633934-633962)  
Brassica carinata (633075-633080)  
Brassica fruticulosa (633081)  
Brassica fruticulosa subsp. fruticulosa (633082)  
Brassica juncea (633009, 633083-633116, 633764)  
Brassica juncea var. juncea (632994)  
Brassica maurorum (633117)

*Brassica napus* (632437-632438, 633118-633124)  
*Brassica napus* var. *napobrassica* (632737-632745)  
*Brassica napus* var. *napus* (633125-633141, 633734)  
*Brassica nigra* (633142-633151)  
*Brassica oleracea* var. *botrytis* (633995)  
*Brassica rapa* (633152-633162)  
*Brassica rapa* subsp. *campestris* (633163-633164, 634000)  
*Brassica rapa* subsp. *chinensis* (633165)  
*Brassica rapa* subsp. *dichotoma* (633166-633167)  
*Brassica rapa* subsp. *oleifera* (633168-633169)  
*Brassica rapa* subsp. *rapa* (633170-633181)  
*Brassica tournefortii* (633182-633184)  
*Bromus cappadocicus* (634283-634284)  
*Bromus catharticus* var. *catharticus* (634279-634281)  
*Bromus commutatus* (632512)  
*Bromus inermis* subsp. *inermis* (632460, 632550, 632560)  
*Bromus inermis* subsp. *pumpellianus* (634307)  
*Bromus irtutus* (632484)  
*Bromus leptoclados* (632519)  
*Bromus riparius* (632417)  
*Calendula arvensis* (633645)  
*Calendula suffruticosa* (633646)  
*Calendula suffruticosa* subsp. *algarbiensis* (633647)  
*Camelina laxa* (633185)  
*Camelina microcarpa* (633186-633191)  
*Camelina sativa* (633192-633194)  
*Capsicum annuum* (632915-632916, 632919-632920)  
*Capsicum annuum* var. *glabriusculum* (632921)  
*Capsicum baccatum* var. *baccatum* (632922, 633751-633752)  
*Capsicum baccatum* var. *pendulum* (632923-632929, 633753-633758)  
*Capsicum frutescens* (632917-632918, 632930-632932)  
*Caragana arborescens* (633648)  
*Carthamus tinctorius* (633915)  
*Catharanthus roseus* (633434)  
*Cenchrus ciliaris* (633875)  
*Cicer arietinum* (633913-633914, 634334)  
*Citrullus lanatus* (632633, 632751-632753)  
*Citrullus lanatus* var. *lanatus* (632754)  
*Citrullus rehmii* (632755)  
*Coriandrum sativum* (633685-633687)  
*Cornus walteri* (633649)  
*Corylus avellana* (634202-634203)  
*Corylus chinensis* (634200)  
*Corylus* sp. (634201)  
*Crambe abyssinica* (633195-633198)  
*Crambe filiformis* (633199)  
*Crambe hispanica* (633200)  
*Crambe kralikii* (633201)  
*Cucumis melo* (633845)  
*Cucurbita maxima* (633997)  
*Cynodon dactylon* var. *dactylon* (632987, 633439)  
*Dactylis glomerata* (632461-632463, 632468, 632477, 632495, 632498-632499,  
632543, 632555, 632566, 632580-632581, 632586, 632588, 632592, 633860,  
634223-634224, 634253-634258, 634311)  
*Dactylis glomerata* subsp. *hispanica* (632497)  
*Dactylis glomerata* subsp. *lusitanica* (634265)  
*Dactylis* sp. (634301)

*Daucus carota* (632965-632969)  
*Daucus carota* var. *sativus* (632991-632992)  
*Echinacea angustifolia* var. *angustifolia* (633650-633657)  
*Echinacea pallida* (633658-633662)  
*Echinacea paradoxa* var. *paradoxa* (633663-633664)  
*Echinacea purpurea* (633665-633671)  
*Echinacea sanguinea* (633672)  
*Echinacea simulata* (633673)  
*Elymus abolinii* (634233)  
*Elymus antiquus* (632564)  
*Elymus canadensis* (634291)  
*Elymus ciliaris* subsp. *japonicus* (632544)  
*Elymus confusus* (632491)  
*Elymus dahuricus* (634270-634273, 634276-634277)  
*Elymus elymoides* subsp. *elymoides* (633741)  
*Elymus glaucus* (634249)  
*Elymus gmelinii* (634286-634288)  
*Elymus lanceolatus* (632506-632507)  
*Elymus lanceolatus* subsp. *lanceolatus* (632756)  
*Elymus multisetus* (632540)  
*Elymus mutabilis* (634292-634293)  
*Elymus nevskii* (632459, 632570)  
*Elymus pendulinus* (632573, 634289)  
*Elymus pendulinus* subsp. *brachypodioides* (632492)  
*Elymus sibiricus* (634228, 634230-634231)  
*Elymus* sp. (634261-634263)  
*Elymus strictus* (634269)  
*Elymus trachycaulus* (634266-634268)  
*Elymus uralensis* subsp. *komarovii* (632541)  
*Elytrigia caespitosa* (634264)  
*Elytrigia intermedia* (634227)  
*Elytrigia intermedia* subsp. *intermedia* (634290)  
*Elytrigia juncea* (634312)  
*Elytrigia repens* (634246-634247, 634250, 634252)  
*Elytrigia repens* subsp. *elongatiformis* (632471)  
*Eremopoa altaica* subsp. *songorica* (634259-634260)  
*Eruca sativa* (633202-633216, 633763)  
*Eruca vesicaria* (633217-633219)  
*Erucastrum virgatum* subsp. *pseudosinapis* (633220)  
*Erysimum asperum* (633221)  
*Erysimum aucherianum* (633222)  
*Erysimum baeticum* (633223)  
*Erysimum cheiranthoides* (633224)  
*Erysimum cuspidatum* (633225)  
*Erysimum diffusum* (633226)  
*Erysimum favargerii* (633227)  
*Erysimum gramineum* (633228)  
*Erysimum inconspicuum* var. *coarctatum* (633229)  
*Erysimum linifolium* (633230)  
*Erysimum nevadense* subsp. *collisparsum* (633231)  
*Erysimum nevadense* subsp. *rondae* (633232)  
*Erysimum odoratum* (633233)  
*Erysimum olympicum* (633234)  
*Erysimum penyalarensis* (633235)  
*Erysimum repandum* (633236)  
*Erysimum scabrum* (633237)  
*Erysimum virgatum* (633238-633240)

*Euonymus obovatus* (633674)  
*Fagopyrum esculentum* (633688-633690)  
*Festuca arundinacea* (632449-632454, 632493-632494, 632496, 632515-632516, 632522-632523, 632529-632530, 632551-632552, 632567-632568, 632572, 632582, 632585, 632587, 632972, 632983-632984, 632988, 632995-632996, 633042-633043, 633833, 633856, 633969, 634229, 634232, 634234-634241, 634360)  
*Festuca arundinacea* subsp. *arundinacea* (632979-632980)  
*Festuca arundinacea* subsp. *orientalis* (634282)  
*Festuca brevipila* (633426)  
*Festuca callieri* (632520)  
*Festuca gracillima* (633717)  
*Festuca lenensis* (632485)  
*Festuca longifolia* (632442, 633849)  
*Festuca ovina* (634302-634304)  
*Festuca pratensis* (634245)  
*Festuca rubra* (632525-632526)  
*Festuca rubra* subsp. *fallax* (632444, 632986, 633855)  
*Festuca rubra* subsp. *rubra* (632443, 632455, 632978, 633560)  
*Festuca sibirica* (632489)  
*Festuca* sp. (632465)  
*Festuca valesiaca* (632505, 634225)  
*Glandularia bipinnatifida* (633709)  
*Glycine max* (632418, 632420-632431, 632600-632622, 632636-632668, 632693-632707, 632709, 632747-632749, 632905, 632933-632950, 632961-632964, 633007-633008, 633039-633040, 633049, 633051, 633424, 633541, 633567, 633608-633610, 633620-633622, 633729-633732, 633735-633736, 633742-633743, 633970, 633983, 634193, 634335)  
*Gossypium hirsutum* (633019, 633548, 633625-633631, 633707, 633710-633712, 633761-633762, 633796, 633858, 633867-633868, 633992, 634005-634006, 634320-634327, 634341, 634357)  
*Helianthus annuus* (633612-633615, 633744-633750)  
*Hesperis matronalis* (633241)  
*Hesperis sibirica* (633242)  
*Hordelymus europaeus* (633714)  
*Hordeum vulgare* (632990, 633692, 633869, 634355)  
*Hordeum vulgare* subsp. *vulgare* (632708, 633971, 633981-633982)  
*Humulus lupulus* (632858)  
*Iberis amara* (633243)  
*Ipomoea batatas* var. *batatas* (633440-633450, 633963-633968, 633984-633989)  
*Ipomoea tricolor* (633607)  
*Isatis glauca* (633244)  
*Kengia songorica* (632547)  
*Kengia squarrosa* (632569)  
*Koeleria glauca* (632536)  
*Koeleria macrantha* (632514)  
*Lactuca sativa* (632439-632440, 632457-632458, 632971, 632993, 633432-633433, 633702-633706, 633998-633999, 634342, 634345)  
*Lagerstroemia hybrid* (633034-633035)  
*Lavatera thuringiaca* (633675)  
*Lens culinaris* (633421-633422)  
*Lens culinaris* subsp. *culinaris* (632629-632632, 633925-633933, 634208-634209)  
*Lepidium alluaudii* (633245)  
*Lepidium apetalum* (633246)  
*Lepidium bonariense* (633247)  
*Lepidium campestre* (633248-633252)  
*Lepidium hirtum* subsp. *nebrodense* (633253)

*Lepidium perfoliatum* (633254)  
*Lepidium ruderales* (633255-633256)  
*Lepidium sativum* (633257-633264)  
*Lepidium* sp. (633265-633267)  
*Lepidium spinosum* (633268)  
*Lepidium virginicum* (633269)  
*Lepidium virginicum* var. *pubescens* (633270)  
*Leymus angustus* (634285)  
*Leymus chinensis* (633713, 633715)  
*Leymus cinereus* (632524, 634305-634306)  
*Linum bienne* (633835)  
*Linum usitatissimum* (632958-632959, 633691)  
*Lolium multiflorum* (632481, 632528, 632537, 632557, 632563, 633795, 634251)  
*Lolium perenne* (632441, 632445, 632472-632474, 632510, 632517, 632527, 632538, 632542, 632553, 632575, 632590, 632981, 632997, 633766, 633846, 633848, 633850, 634017, 634204-634205, 634278, 634319, 634336-634337, 634343)  
*Lolium rigidum* subsp. *lepturoides* (632513, 634308-634310)  
*Lotus corniculatus* (633724, 634033, 634338)  
*Lycopersicon esculentum* (633453-633506)  
*Malus brevipes* (633837)  
*Malus domestica* (632623-632625, 633825-633827)  
*Malus hupehensis* (633807, 633812, 633818)  
*Malus kansuensis* (633809-633810)  
*Malus orientalis* (633819-633823, 633828-633832)  
*Malus prattii* (633804, 633813)  
*Malus sieversii* (632626, 633797, 633799-633803, 633918-633923)  
*Malus sieversii* var. *kirghisorum* (633798)  
*Malus sylvestris* (633824)  
*Malus toringo* (633814-633815)  
*Malus toringoides* (633808, 633811)  
*Malus transitoria* (633805-633806)  
*Malus yunnanensis* (633836)  
*Malus zhaojiaoensis* (633816-633817)  
*Malva sylvestris* (633676)  
*Matthiola longipetala* (633271)  
*Medicago sativa* nothosubsp. *hemicycla* (634111, 634121, 634123, 634128-634130, 634139, 634146, 634149-634150, 634160, 634163, 634166, 634170, 634172-634173, 634175, 634179, 634184-634185)  
*Medicago sativa* nothosubsp. *varia* (634022, 634113, 634115, 634124-634125, 634132, 634140, 634153-634154, 634161, 634164-634165, 634167-634168, 634171, 634177, 634186-634190)  
*Medicago sativa* subsp. *caerulea* (634119, 634122, 634126, 634136, 634138, 634174, 634176, 634178)  
*Medicago sativa* subsp. *falcata* (634023-634024, 634027, 634029-634032, 634034, 634090, 634099, 634105-634106, 634112, 634114, 634117-634118, 634120, 634127, 634131, 634133-634135, 634143-634144, 634147, 634158-634159, 634162, 634180-634183)  
*Medicago sativa* subsp. *sativa* (634028, 634142, 634145, 634169, 634339-634340)  
*Medicago suffruticosa* subsp. *leiocarpa* (634025-634026)  
*Melampodium leucanthum* (633708)  
*Melilotus officinalis* (634019)  
*Monarda fistulosa* (633638-633639)  
*Monarda hybrid* (633640-633642)  
*Mucuna pruriens* (634356)  
*Nassella viridula* (632466, 632521, 632534, 632556, 632561, 632583, 632589)  
*Nicotiana gossei* (633611)  
*Origanum vulgare* (633643)

*Oryza sativa* (632447, 632951-632957, 632999, 633623-633624, 633725-633726, 633972-633973, 634219-634222)  
*Panicum miliaceum* (633425)  
*Pascopyrum smithii* (632508, 632578, 634300)  
*Phaseolus augusti* (632862)  
*Phaseolus coccineus* (633530-633532, 633534)  
*Phaseolus vulgaris* (632432, 632446, 632448, 632692, 632714-632736, 632859-632861, 632998, 633000, 633010-633018, 633036, 633423, 633427-633428, 633451-633452, 633507-633529, 633533, 633535-633540, 633573, 633616-633619, 633700, 633853, 634344, 634346)  
*Phellodendron amurense* (633677)  
*Phleum montanum* (632469, 632531)  
*Phleum phleoides* (634226)  
*Pisum sativum* (632436, 633038, 633045, 633429-633430, 633693-633699, 633701)  
*Poa arachnifera* (632500-632503, 632539, 632591)  
*Poa attenuata* subsp. *argunensis* (632546, 632579)  
*Poa attenuata* subsp. *botryoides* (632482)  
*Poa lipskyi* (632562)  
*Poa palustris* (632576)  
*Poa pratensis* (632456, 632467, 632488, 632558, 632597-632598, 632627, 633050, 633547, 633561, 633568, 633861, 634048)  
*Poa pratensis* subsp. *pratensis* (632973-632977, 632982, 632985, 633854)  
*Poa* sp. (632504)  
*Poa sterilis* (632511)  
*Poa trivialis* (633870)  
*Poa versicolor* subsp. *stepposa* (632535)  
*Prunus cerasus* (632680)  
*Prunus hybrid* (632684-632685)  
*Prunus maackii* (632686)  
*Prunus sargentii* (632681)  
*Prunus serrulata* var. *lannesiana* (632682)  
*Prunus x yedoensis* (632683)  
*Psathyrostachys juncea* (634274-634275)  
*Pseudoroegneria geniculata* (632554, 634248)  
*Pseudoroegneria spicata* (632464, 632479-632480, 632518, 632532)  
*Psilurus incurvus* (632548)  
*Puccinellia* sp. (632470)  
*Rhodotypos scandens* (633678)  
*Secale cereale* subsp. *cereale* (632593-632596)  
*Setaria italica* (633416-633418)  
*Sinapis alba* (633272-633360)  
*Sinapis alba* subsp. *alba* (633361-633368)  
*Sinapis arvensis* (633369-633401)  
*Sinapis arvensis* subsp. *arvensis* (633402-633413)  
*Solanum melongena* (634358)  
*Solanum tuberosum* (633598-633606)  
*Sorbaria sorbifolia* (633679)  
*Sorghum bicolor* (633435-633438)  
*Spiraea media* (633680)  
*Stipa capillata* (632545, 633716, 634298-634299)  
*Stipa glareosa* (633720)  
*Stipa sibirica* (633719, 633721-633723)  
*Tanacetum cinerariifolium* (633681)  
*Tanacetum huronense* (633682-633683)  
*Tanacetum parthenium* (633684)  
*Thlaspi arvense* (633414-633415)  
*Trifolium campestre* (633977-633980)

*Trifolium caucasicum* (634037)  
*Trifolium fragiferum* (634038-634039, 634041-634042, 634044-634045,  
634051-634052, 634067-634070, 634107, 634137, 634141, 634151-634152,  
634155)  
*Trifolium hybridum* (634035-634036, 634040, 634043, 634046, 634050, 634053,  
634055, 634057-634058, 634060, 634063, 634065-634066, 634108)  
*Trifolium lupinaster* (634091-634093, 634095-634096, 634098, 634100-634104)  
*Trifolium medium* (634061)  
*Trifolium pallescens* (634109)  
*Trifolium pratense* (633760, 634072-634073, 634082, 634084, 634089, 634156)  
*Trifolium repens* (633851-633852, 634047-634048, 634049, 634054, 634056,  
634059, 634062, 634064, 634071, 634074-634081, 634083, 634085-634088,  
634094, 634097, 634110, 634116, 634148, 634157, 634192)  
*Trifolium thompsonii* (632628)  
*Trifolium velebiticum* (634191)  
*Tripsacum dactyloides* (633634)  
*Triticum aestivum* (632688, 632690, 632970, 632989, 633571-633572, 633575,  
633765, 633857, 633863-633865, 633871-633874, 633916, 634011,  
634020-634021)  
*Triticum aestivum* subsp. *aestivum* (632433-632435, 632635, 632689, 632691,  
632710-632713, 632857, 632906-632907, 633020-633033, 633037, 633597,  
633737-633738, 633772-633778, 633834, 633862, 633876-633911, 633974,  
633976, 634012, 634314)  
*Triticum turgidum* subsp. *durum* (634315-634318)  
*Vicia amoena* (632679)  
*Vicia articulata* (632674)  
*Vicia ervilia* (632669, 632671-632672)  
*Vicia faba* (633759, 633990)  
*Vicia lutea* (632673)  
*Vicia montbretii* (632670)  
*Vicia sativa* (632677)  
*Vicia sativa* subsp. *nigra* (632678)  
*Vicia* sp. (632675-632676)  
*Vigna radiata* (632914, 633419-633420)  
*Vigna unguiculata* (632419, 633739-633740)  
*Vigna unguiculata* subsp. *dekindtiana* (632863-632897, 632908-632909)  
*Vigna unguiculata* subsp. *pubescens* (632898-632902, 632910)  
*Vigna unguiculata* subsp. *sesquipedalis* (632829)  
*Vigna unguiculata* subsp. *stenophylla* (632903-632904, 632911-632913)  
*Vigna unguiculata* subsp. *unguiculata* (632757-632828, 632830-632856)  
X *Aegilotriticum* sp. (634196-634199)  
X *Triticosecale* sp. (633917, 633975, 633996, 634010, 634194-634195)  
*Zea mays* subsp. *mays* (632599, 632746, 633431, 633542-633546, 633549-633559,  
633562-633566, 633569-633570, 633574, 633632-633633, 633727-633728,  
633767-633771, 633838-633844, 633924, 633993-633994, 634001-634004,  
634007-634009, 634013-634015, 634206-634207, 634211-634215,  
634347-634350)]]